STIC Search Report
EIC 1700

STIC Database Tracking Number: 134543

TO:	From:
Rebecca Stadler Location: REM 9D54 Art Unit : 1754 April 11, 2006 Case Serial Number: 10/661626	Usha Shrestha Location: EIC 1700 REMSEN 4B28 Phone: 571/272-3519 usha.shrestha@uspto.gov

Search Notes

Access DB# 184514

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Rebecca Stadler Examiner #: 81028 Date: 04/06/2006
Art Unit: 1754 Phone Number 30 2-5356 Serial Number: 10/661,626
Mail Box and Bldg/Room Location: 9D54 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method of manufacturing carbon fibers and method ~~of~~ manufacturing electron...
Inventors (please provide full names): Takashi Iwaki & Takeo Tsukamoto

Earliest Priority Filing Date: 09/26/2002

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Claims 1-15 & claim 22 - the rest were restricted.

Also, I attached page 3 of the Specification - Line 11-15 has several Japanese documents - if you can find these and any related documents that would be great!
Thanks

SCIENTIFIC REFERENCE BR
Sci & Tech Inf Ctr
APR 7 REC'D
Pat. & T.M. Office

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Lisa	NA Sequence (#)	STN 5 423 /A
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up: 4/11/06	Bibliographic	Dr.Link
Date Completed: 4/11/06	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 60	Fulltext X	Sequence Systems
Clerical Prep Time: 30	Patent Family	WWW/Internet
Online Time: 120	Other	Other (specify)

PTO-1590 (8-01)

STIC Search Results Feedback Form

USPTO

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art* ***found****, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art* ***not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

WHAT IS CLAIMED IS:

1. A method for manufacturing carbon fiber, comprising :

a step of forming a coated film containing a metal organic compound and a water-soluble polymer compound by applying an ink for producing a catalyst comprising a solution containing at least the metal organic compound and the polymer compound onto a substrate,

a step of forming catalyst particles comprising a metal constituting said metal organic compound by heating said coated film, and

a step of forming carbon fibers by bringing a gas containing carbon into contact with the catalyst particles.

2. The method according to claim 1, wherein said polymer compound is any one selected from the group consisting of polyvinyl alcohol, polyacrylic acids and polyvinylpyrrolidone.

3. The method according to claim 1, wherein said metal constituting the metal organic compound is any one selected from the group consisting of Pd, Fe, Co and Ni.

4. The method according to claim 1, wherein

said metal organic compound is a metal organic complex.

5. The method according to claim 1, wherein a main solvent of said catalyst-manufacturing ink is water.

6. The method according to claim 1, wherein a main solvent of said catalyst-manufacturing ink is an organic solvent.

7. The method according to claim 1, wherein the step of heating said coated film is carried out in a non-oxidizing atmosphere.

8. The method according to claim 1, wherein the step of heating said coated film is a step of baking the coated film in an oxidizing atmosphere and then heating it in a reducing atmosphere.

9. The method according to claim 1, wherein said gas containing carbon is a hydrocarbon gas.

10. The method according to claim 1, wherein said gas containing carbon is a mixed gas of a hydrocarbon gas with hydrogen gas.

11. A method for manufacturing an electron emitting device containing carbon fibers connected to an electrode comprising at least:

a step of forming a coated film containing a metal organic compound and a water-soluble polymer compound by applying an ink for producing a catalyst comprising a solution containing at least the metal organic compound and the water-soluble polymer compound onto the electrode,

a step of forming catalyst particles comprising a metal constituting said metal organic compound on said electrode by heating said coated film, and

a step of forming carbon fibers by bringing a gas containing carbon into contact with the catalyst particles.

12. The method according to claim 11, wherein said polymer compound is any one selected from the group consisting of polyvinyl alcohol, polyacrylic acids and polyvinylpyrrolidone.

13. The method according to claim 11, wherein said metal constituting the metal organic compound is any one selected from the group consisting of Pd, Fe, Co and Ni.

14. The method according to claim 11, wherein said metal organic compound is a metal organic complex.

15. The method according to claim 11, wherein said gas containing carbon is a mixed gas of a hydrocarbon gas with hydrogen gas.

16. An ink for producing a catalyst for growing carbon fibers, comprising at least a metal organic compound, a water-soluble polymer compound and a solvent.

17. The catalyst-manufacturing ink according to claim 16, wherein said polymer compound is any one selected from the group consisting of polyvinyl alcohol, polyacrylic acids and polyvinylpyrrolidone.

18. The catalyst-manufacturing ink according to claim 16, wherein said metal constituting the metal organic compound is any one selected from the group consisting of Pd, Fe, Co, and Ni.

19. The catalyst-manufacturing ink according to claim 16, wherein said metal organic compound is a metal organic complex.

20. The catalyst-manufacturing ink according to claim 16, wherein said solvent is mainly water.

21. The catalyst-manufacturing ink according to claim 16, wherein said solvent is mainly an organic solvent.

22. A method for manufacturing a display using a plurality of electron emitting devices, wherein said electron emitting devices are manufactured by the method according to claim 11.

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=> fil reg
FILE 'REGISTRY' ENTERED AT 10:43:46 ON 11 APR 2006

=> d his ful

     FILE 'HCAPLUS' ENTERED AT 09:08:41 ON 11 APR 2006
L1             1 SEA ABB=ON  PLU=ON  US20040060477/PN

     FILE 'REGISTRY' ENTERED AT 09:09:00 ON 11 APR 2006
L2            17 SEA ABB=ON  PLU=ON  (107-21-1/BI OR 1333-74-0/BI OR
                 14024-18-1/BI OR 14808-60-7/BI OR 25583-20-4/BI OR
                 473828-45-4/BI OR 6018-89-9/BI OR 6147-53-1/BI OR
                 67-63-0/BI OR 7439-89-6/BI OR 7440-02-0/BI OR 7440-05-3
                 /BI OR 7440-32-6/BI OR 7440-48-4/BI OR 9002-89-5/BI OR
                 9003-01-4/BI OR 9003-39-8/BI)
L3             1 SEA ABB=ON  PLU=ON  NICKEL/CN
L4             1 SEA ABB=ON  PLU=ON  COBALT/CN
L5             1 SEA ABB=ON  PLU=ON  IRON/CN
L6             1 SEA ABB=ON  PLU=ON  7440-05-3/RN
L7             1 SEA ABB=ON  PLU=ON  HYDROGEN/CN
L8             1 SEA ABB=ON  PLU=ON  9003-01-4/RN
L9             1 SEA ABB=ON  PLU=ON  9003-39-8/RN
L10            1 SEA ABB=ON  PLU=ON  9002-89-5 /RN
L11            1 SEA ABB=ON  PLU=ON  6018-89-9/RN
L12            1 SEA ABB=ON  PLU=ON  6147-53-1/RN
L13            1 SEA ABB=ON  PLU=ON  14024-18-1/RN
L14            1 SEA ABB=ON  PLU=ON  473828-45-4/RN

     FILE 'HCAPLUS' ENTERED AT 09:19:31 ON 11 APR 2006
L15       843829 SEA ABB=ON  PLU=ON  L3 OR NI OR NICKEL
L16      1009917 SEA ABB=ON  PLU=ON  L4 OR CO OR COBALT
L17      1297636 SEA ABB=ON  PLU=ON  L5 OR FE OR IRON
L18       246655 SEA ABB=ON  PLU=ON  L6 OR PD OR PALLADIUM
L19      1031119 SEA ABB=ON  PLU=ON  L7 OR H2 OR HYDROGEN
L20       122594 SEA ABB=ON  PLU=ON  L8 OR POLYACRYLIC(A)ACID?   OR
                 ACRYLIC(A)ACID?
L21        38614 SEA ABB=ON  PLU=ON  L9 OR ?VINYLPYRROLIDONE? OR
                 ?VINYL(A)PYRROLIDONE?
L22       100078 SEA ABB=ON  PLU=ON  L10 OR ?VINYL(A)ALCOHOL?
L23          298 SEA ABB=ON  PLU=ON  L11
L24              QUE ABB=ON  PLU=ON  (L12 OR L13 OR L14)
L25       241840 SEA ABB=ON  PLU=ON  (L20 OR L21 OR L22)
L26           76 SEA ABB=ON  PLU=ON  L25 AND (L23 OR L24)
L27           64 SEA ABB=ON  PLU=ON  L26 AND ((L15 OR L16 OR L17 OR
                 L18))
L28            1 SEA ABB=ON  PLU=ON  L27 AND L1
L29            4 SEA ABB=ON  PLU=ON  L27 AND ELECTRIC?/SC,SX
L30            2 SEA ABB=ON  PLU=ON  L27 AND CARBON(A)FIBER?
L31            2 SEA ABB=ON  PLU=ON  L26 AND CARBON(2A)(FIBER? OR
                 FIBRE?)
L32              QUE ABB=ON  PLU=ON  (L15 OR L16 OR L17 OR L18)
L33        24240 SEA ABB=ON  PLU=ON  L25 AND L32
L34          199 SEA ABB=ON  PLU=ON  L33 AND CARBON(2A)(FIBRE? OR
                 FIBER?)
L35           28 SEA ABB=ON  PLU=ON  L34 AND ELECTRIC?/SC,SX
L36            3 SEA ABB=ON  PLU=ON  L35 AND L19
L37           49 SEA ABB=ON  PLU=ON  L34 AND DEV/RL
L38            5 SEA ABB=ON  PLU=ON  L26 AND DEV/RL
L39            5 SEA ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31)
L40            7 SEA ABB=ON  PLU=ON  L39 OR L36
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L41           2 SEA ABB=ON  PLU=ON  L35 AND ELECTRON?(A)EMIT?(2A)DEVIC?

L42           2 SEA ABB=ON  PLU=ON  L34 AND ELECTRON?(A)EMIT?(2A)DEVIC?

L43           1 SEA ABB=ON  PLU=ON  L26 AND ELECTRON?(A)EMIT?(2A)DEVIC?

L44           8 SEA ABB=ON  PLU=ON  (L40 OR L41 OR L42 OR L43)
L45          19 SEA ABB=ON  PLU=ON  L26 AND COAT?
L46           7 SEA ABB=ON  PLU=ON  L45 AND (SUBSTRAT? OR SURFACE? OR
                BASE# OR SUBSTRUCT? OR UNDERSTRUCT? OR UNDERLAY? OR
                DISK? OR DISC# OR WAFER?)
L47          13 SEA ABB=ON  PLU=ON  L44 OR L46
L48         115 SEA ABB=ON  PLU=ON  L34 AND (SUBSTRAT? OR SURFACE? OR
                BASE# OR SUBSTRUCT? OR UNDERSTRUCT? OR UNDERLAY? OR
                DISK? OR DISC# OR WAFER?)
L49           1 SEA ABB=ON  PLU=ON  L48 AND (HYDROCARBON(A)GAS OR
                CARBON(A)CONTAIN?(A)GAS?)
L50          20 SEA ABB=ON  PLU=ON  L48 AND CAT/RL
L51          30 SEA ABB=ON  PLU=ON  L47 OR L50
L52          14 SEA ABB=ON  PLU=ON  L51 AND (HEAT? OR TEMP# OR
                TEMPERATUR?)
L53          30 SEA ABB=ON  PLU=ON  L51 OR L52
L54           7 SEA ABB=ON  PLU=ON  L51 AND PARTICLE?
L55          30 SEA ABB=ON  PLU=ON  L53 OR L54
L56           6 SEA ABB=ON  PLU=ON  L45 AND CAT/RL
L57           1 SEA ABB=ON  PLU=ON  L56 AND PARTICLE?
L58          32 SEA ABB=ON  PLU=ON  (L55 OR L56 OR L57)
L59           8 SEA ABB=ON  PLU=ON  L58 AND ELECTRIC?/SC,SX
L60         649 SEA ABB=ON  PLU=ON  L25 AND ORGANIC?(2A)METAL?
L61           6 SEA ABB=ON  PLU=ON  L60 AND CARBON(2A)(FIBER? OR
                FIBRE?)
L62           2 SEA ABB=ON  PLU=ON  L61 AND ELECTRIC?/SC,SX
L63           8 SEA ABB=ON  PLU=ON  L59 OR L62
L64        5925 SEA ABB=ON  PLU=ON  POLYMER? AND ORGANIC?(2A)METAL?
L65          55 SEA ABB=ON  PLU=ON  L64 AND CARBON(2A)(FIBER? OR
                FIBRE?)
L66           5 SEA ABB=ON  PLU=ON  L65 AND ELECTRIC?/SC,SX
L67          12 SEA ABB=ON  PLU=ON  L63 OR L66
L68        1146 SEA ABB=ON  PLU=ON  L64 AND COAT?
L69           1 SEA ABB=ON  PLU=ON  L68 AND CATALYST(2A)PARTICLE?
L70         400 SEA ABB=ON  PLU=ON  L68 AND (HEAT? OR TEMP# OR
                TEMPERATUR?)
L71         246 SEA ABB=ON  PLU=ON  L70 AND (SUBSTRAT? OR SURFACE? OR
                BASE# OR SUBSTRUCT? OR UNDERSTRUCT? OR UNDERLAY? OR
                DISK? OR DISC# OR WAFER?)
L72          37 SEA ABB=ON  PLU=ON  L71 AND ELECTRIC?/SC,SX
L73           1 SEA ABB=ON  PLU=ON  L72 AND CARBON(2A)(FIBER? OR
                FIBRE?)
L74           1 SEA ABB=ON  PLU=ON  L72 AND  ELECTRON?(A)EMIT?(2A)DEVIC
                ?
L75          12 SEA ABB=ON  PLU=ON  L67 OR (L73 OR L74)

     FILE 'WPIX' ENTERED AT 10:24:18 ON 11 APR 2006
L76       31681 SEA ABB=ON  PLU=ON  CARBON(2A)(FIBRE? OR FIBER?)
L77       49917 SEA ABB=ON  PLU=ON  VINYL(A)ALCOHOL(A)POLYMER? OR
                POLYVINYL(A)ALCOHOL? OR POLYACRYLIC(A)ACID? OR
                ACRYLIC(A)ACID(A)POLYMER? OR POLYVINYLPYRROLIDON? OR
                VINYLPYRROLIDON?(A)POLYMER?
L78         457 SEA ABB=ON  PLU=ON  L76 AND L77
L79          30 SEA ABB=ON  PLU=ON  L78 AND CATALYST?
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L80             6 SEA ABB=ON  PLU=ON  L79 AND EMIT?
L81            51 SEA ABB=ON  PLU=ON  L78 AND (NICKEL? OR IRON? OR
                  COBALT? OR PALLADIUM?)
L82             9 SEA ABB=ON  PLU=ON  L81 AND CATALYST?
L83            12 SEA ABB=ON  PLU=ON  L80 OR L82

     FILE 'COMPENDEX' ENTERED AT 10:31:05 ON 11 APR 2006
L84             0 SEA ABB=ON  PLU=ON  L79 AND EMIT?
L85             2 SEA ABB=ON  PLU=ON  L78 AND (NICKEL? OR IRON? OR
                  COBALT? OR PALLADIUM?)
L86             2 SEA ABB=ON  PLU=ON  L78 AND CATALYST?
L87             3 SEA ABB=ON  PLU=ON  L85 OR L86
L88             3 SEA ABB=ON  PLU=ON  L87 OR L84

     FILE 'JICST-EPLUS' ENTERED AT 10:32:44 ON 11 APR 2006
L89             0 SEA ABB=ON  PLU=ON  L79 AND EMIT?
L90             1 SEA ABB=ON  PLU=ON  L78 AND CATALYST?
L91             3 SEA ABB=ON  PLU=ON  L78 AND (NICKEL? OR IRON? OR
                  COBALT? OR PALLADIUM?)
L92             3 SEA ABB=ON  PLU=ON  (L89 OR L90 OR L91)

     FILE 'JAPIO' ENTERED AT 10:34:14 ON 11 APR 2006
L93             0 SEA ABB=ON  PLU=ON  L79 AND EMIT?
L94             4 SEA ABB=ON  PLU=ON  L78 AND (NICKEL? OR IRON? OR
                  COBALT? OR PALLADIUM?)
L95             0 SEA ABB=ON  PLU=ON  L94 AND ?EMIT?
L96             0 SEA ABB=ON  PLU=ON  L93 OR L95

     FILE 'HCAPLUS' ENTERED AT 10:38:07 ON 11 APR 2006
L97           604 SEA ABB=ON  PLU=ON  L76 AND L77
L98             4 SEA ABB=ON  PLU=ON  L97 AND ?EMIT?
L99            44 SEA ABB=ON  PLU=ON  L97 AND CATALYST?
L100           15 SEA ABB=ON  PLU=ON  L99 AND (NICKEL? OR IRON? OR
                  COBALT? OR PALLADIUM?)
L101           24 SEA ABB=ON  PLU=ON  L100 OR L75

     FILE 'HCAPLUS, WPIX, COMPENDEX, JICST-EPLUS' ENTERED AT 10:43:02
     ON 11 APR 2006
L102           37 DUP REM L101 L83 L88 L92 L96 (5 DUPLICATES REMOVED)


=> fil hcap
FILE 'HCAPLUS' ENTERED AT 10:44:03 ON 11 APR 2006

=> d que l101
L1              1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US20040060477/PN
L3              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  NICKEL/CN
L4              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COBALT/CN
L5              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRON/CN
L6              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  7440-05-3/RN
L7              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  HYDROGEN/CN
L8              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9003-01-4/RN
L9              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9003-39-8/RN
L10             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9002-89-5 /RN
L11             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  6018-89-9/RN
L12             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  6147-53-1/RN
L13             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  14024-18-1/RN
L14             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  473828-45-4/RN
L15        843829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 OR NI OR NICKEL
L16       1009917 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 OR CO OR COBALT
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L17     1297636 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR FE OR IRON
L18      246655 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 OR PD OR PALLADIUM

L19     1031119 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 OR H2 OR HYDROGEN
L20      122594 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 OR POLYACRYLIC(A)AC
                ID?   OR ACRYLIC(A)ACID?
L21       38614 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 OR ?VINYLPYRROLIDON
                E? OR ?VINYL(A)PYRROLIDONE?
L22      100078 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 OR ?VINYL(A)ALCOHO
                L?
L23         298 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L24             QUE  ABB=ON  PLU=ON  (L12 OR L13 OR L14)
L25      241840 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L20 OR L21 OR L22)
L26          76 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND (L23 OR L24)
L27          64 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND ((L15 OR L16
                OR L17 OR L18))
L28           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND L1
L29           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND ELECTRIC?/SC,S
                X
L30           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND CARBON(A)FIBER
                ?
L31           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND CARBON(2A)(FIB
                ER? OR FIBRE?)
L32             QUE  ABB=ON  PLU=ON  (L15 OR L16 OR L17 OR L18)
L33       24240 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND L32
L34         199 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND CARBON(2A)(FIB
                RE? OR FIBER?)
L35          28 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34 AND ELECTRIC?/SC,S
                X
L36           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND L19
L39           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR
                L31)
L40           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 OR L36
L41           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND ELECTRON?(A)EM
                IT?(2A)DEVIC?
L42           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34 AND ELECTRON?(A)EM
                IT?(2A)DEVIC?
L43           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND ELECTRON?(A)EM
                IT?(2A)DEVIC?
L44           8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L40 OR L41 OR L42 OR
                L43)
L45          19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND COAT?
L46           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45 AND (SUBSTRAT? OR
                SURFACE? OR BASE# OR SUBSTRUCT? OR UNDERSTRUCT? OR
                UNDERLAY? OR DISK? OR DISC# OR WAFER?)
L47          13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 OR L46
L48         115 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34 AND (SUBSTRAT? OR
                SURFACE? OR BASE# OR SUBSTRUCT? OR UNDERSTRUCT? OR
                UNDERLAY? OR DISK? OR DISC# OR WAFER?)
L50          20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L48 AND CAT/RL
L51          30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L47 OR L50
L52          14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND (HEAT? OR
                TEMP# OR TEMPERATUR?)
L53          30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 OR L52
L54           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND PARTICLE?
L55          30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 OR L54
L56           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45 AND CAT/RL
L57           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L56 AND PARTICLE?
L58          32 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L55 OR L56 OR L57)
L59           8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L58 AND ELECTRIC?/SC,S
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                X
L60          649 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND ORGANIC?(2A)ME
                TAL?
L61            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L60 AND CARBON(2A)(FIB
                ER? OR FIBRE?)
L62            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L61 AND ELECTRIC?/SC,S
                X
L63            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L59 OR L62
L64         5925 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYMER? AND ORGANIC?(
                2A)METAL?
L65           55 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L64 AND CARBON(2A)(FIB
                ER? OR FIBRE?)
L66            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 AND ELECTRIC?/SC,S
                X
L67           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L63 OR L66
L68         1146 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L64 AND COAT?
L70          400 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L68 AND (HEAT? OR
                TEMP# OR TEMPERATUR?)
L71          246 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L70 AND (SUBSTRAT? OR
                SURFACE? OR BASE# OR SUBSTRUCT? OR UNDERSTRUCT? OR
                UNDERLAY? OR DISK? OR DISC# OR WAFER?)
L72           37 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L71 AND ELECTRIC?/SC,S
                X
L73            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L72 AND CARBON(2A)(FIB
                ER? OR FIBRE?)
L74            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L72 AND  ELECTRON?(A)E
                MIT?(2A)DEVIC?
L75           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 OR (L73 OR L74)
L76        31681 SEA FILE=WPIX ABB=ON  PLU=ON  CARBON(2A)(FIBRE? OR
                FIBER?)
L77        49917 SEA FILE=WPIX ABB=ON  PLU=ON  VINYL(A)ALCOHOL(A)POLYMER
                ? OR POLYVINYL(A)ALCOHOL? OR POLYACRYLIC(A)ACID? OR
                ACRYLIC(A)ACID(A)POLYMER? OR POLYVINYLPYRROLIDON? OR
                VINYLPYRROLIDON?(A)POLYMER?
L97          604 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L76 AND L77
L99           44 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L97 AND CATALYST?
L100          15 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L99 AND (NICKEL? OR
                IRON? OR COBALT? OR PALLADIUM?)
L101          24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L100 OR L75


=> fil wpix

=> d que l83
L76        31681 SEA FILE=WPIX ABB=ON  PLU=ON  CARBON(2A)(FIBRE? OR
                FIBER?)
L77        49917 SEA FILE=WPIX ABB=ON  PLU=ON  VINYL(A)ALCOHOL(A)POLYMER
                ? OR POLYVINYL(A)ALCOHOL? OR POLYACRYLIC(A)ACID? OR
                ACRYLIC(A)ACID(A)POLYMER? OR POLYVINYLPYRROLIDON? OR
                VINYLPYRROLIDON?(A)POLYMER?
L78          457 SEA FILE=WPIX ABB=ON  PLU=ON  L76 AND L77
L79           30 SEA FILE=WPIX ABB=ON  PLU=ON  L78 AND CATALYST?
L80            6 SEA FILE=WPIX ABB=ON  PLU=ON  L79 AND EMIT?
L81           51 SEA FILE=WPIX ABB=ON  PLU=ON  L78 AND (NICKEL? OR
                IRON? OR COBALT? OR PALLADIUM?)
L82            9 SEA FILE=WPIX ABB=ON  PLU=ON  L81 AND CATALYST?
L83           12 SEA FILE=WPIX ABB=ON  PLU=ON  L80 OR L82


=> fil compendex
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FILE 'COMPENDEX' ENTERED AT 10:44:30 ON 11 APR 2006

=> d que l88
L76        31681 SEA FILE=WPIX ABB=ON  PLU=ON  CARBON(2A)(FIBRE? OR
                 FIBER?)
L77        49917 SEA FILE=WPIX ABB=ON  PLU=ON  VINYL(A)ALCOHOL(A)POLYMER
                 ? OR POLYVINYL(A)ALCOHOL? OR POLYACRYLIC(A)ACID? OR
                 ACRYLIC(A)ACID(A)POLYMER? OR POLYVINYLPYRROLIDON? OR
                 VINYLPYRROLIDON?(A)POLYMER?
L78          457 SEA FILE=WPIX ABB=ON  PLU=ON  L76 AND L77
L79           30 SEA FILE=WPIX ABB=ON  PLU=ON  L78 AND CATALYST?
L84            0 SEA FILE=COMPENDEX ABB=ON  PLU=ON  L79 AND EMIT?
L85            2 SEA FILE=COMPENDEX ABB=ON  PLU=ON  L78 AND (NICKEL? OR
                 IRON? OR COBALT? OR PALLADIUM?)
L86            2 SEA FILE=COMPENDEX ABB=ON  PLU=ON  L78 AND CATALYST?
L87            3 SEA FILE=COMPENDEX ABB=ON  PLU=ON  L85 OR L86
L88            3 SEA FILE=COMPENDEX ABB=ON  PLU=ON  L87 OR L84


=> fil jicst
FILE 'JICST-EPLUS' ENTERED AT 10:44:44 ON 11 APR 2006

=> d que l92
L76        31681 SEA FILE=WPIX ABB=ON  PLU=ON  CARBON(2A)(FIBRE? OR
                 FIBER?)
L77        49917 SEA FILE=WPIX ABB=ON  PLU=ON  VINYL(A)ALCOHOL(A)POLYMER
                 ? OR POLYVINYL(A)ALCOHOL? OR POLYACRYLIC(A)ACID? OR
                 ACRYLIC(A)ACID(A)POLYMER? OR POLYVINYLPYRROLIDON? OR
                 VINYLPYRROLIDON?(A)POLYMER?
L78          457 SEA FILE=WPIX ABB=ON  PLU=ON  L76 AND L77
L79           30 SEA FILE=WPIX ABB=ON  PLU=ON  L78 AND CATALYST?
L89            0 SEA FILE=JICST-EPLUS ABB=ON  PLU=ON  L79 AND EMIT?
L90            1 SEA FILE=JICST-EPLUS ABB=ON  PLU=ON  L78 AND CATALYST?

L91            3 SEA FILE=JICST-EPLUS ABB=ON  PLU=ON  L78 AND (NICKEL?
                 OR IRON? OR COBALT? OR PALLADIUM?)
L92            3 SEA FILE=JICST-EPLUS ABB=ON  PLU=ON  (L89 OR L90 OR
                 L91)


=> fil jicst
FILE 'JICST-EPLUS' ENTERED AT 10:44:55 ON 11 APR 2006

=> d que l96
L76        31681 SEA FILE=WPIX ABB=ON  PLU=ON  CARBON(2A)(FIBRE? OR
                 FIBER?)
L77        49917 SEA FILE=WPIX ABB=ON  PLU=ON  VINYL(A)ALCOHOL(A)POLYMER
                 ? OR POLYVINYL(A)ALCOHOL? OR POLYACRYLIC(A)ACID? OR
                 ACRYLIC(A)ACID(A)POLYMER? OR POLYVINYLPYRROLIDON? OR
                 VINYLPYRROLIDON?(A)POLYMER?
L78          457 SEA FILE=WPIX ABB=ON  PLU=ON  L76 AND L77
L79           30 SEA FILE=WPIX ABB=ON  PLU=ON  L78 AND CATALYST?
L93            0 SEA FILE=JAPIO ABB=ON  PLU=ON  L79 AND EMIT?
L94            4 SEA FILE=JAPIO ABB=ON  PLU=ON  L78 AND (NICKEL? OR
                 IRON? OR COBALT? OR PALLADIUM?)
L95            0 SEA FILE=JAPIO ABB=ON  PLU=ON  L94 AND ?EMIT?
L96            0 SEA FILE=JAPIO ABB=ON  PLU=ON  L93 OR L95


=> fil hcap wpix compendex jicst japio
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FILE 'HCAPLUS' ENTERED AT 10:45:26 ON 11 APR 2006

FILE 'WPIX' ENTERED AT 10:45:26 ON 11 APR 2006

FILE 'COMPENDEX' ENTERED AT 10:45:26 ON 11 APR 2006

FILE 'JICST-EPLUS' ENTERED AT 10:45:26 ON 11 APR 2006

FILE 'JAPIO' ENTERED AT 10:45:26 ON 11 APR 2006

=> d l102 1-37 ibib abs hitstr hitind

L102 ANSWER 1 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:213256 HCAPLUS
DOCUMENT NUMBER: 144:303097
TITLE: Water-soluble nanoparticles stabilized with multi-functional group ligands and method of preparation thereof
INVENTOR(S): Cheon, Jin-Woo; Jun, Young-Wook; Choi, Jin-Sil
PATENT ASSIGNEE(S): Yonsei University, S. Korea
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006025627	A1	20060309	WO 2004-KR2509	20040930

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: KR 2004-70304 A 20040903

AB Disclosed are H2O-soluble nanoparticles. The H2O-soluble nanoparticles are each surrounded by a multifunctional group ligand including an adhesive region, a cross linking region, and a reactive region. In the H2O-soluble nanoparticles, the crosslinking region of the multifunctional group ligand is cross-linked with another crosslinking region of a neighboring multifunctional group ligand. Also, the present invention provides a method of producing H2O-soluble nanoparticles, which includes (1) synthesizing H2O-insol. nanoparticles in an organic solvent, (2) dissolving the H2O insol.

nanoparticles in a 1st solvent and dissolving H2O-soluble multifunctional group ligands in a 2nd solvent, (3) mixing the 2 solns. from the step (2) to substitute surfaces of the H2O-insol. nanoparticles with the multifunctional group ligands and dissolving a mixture in an aqueous solution to conduct a separation process, and

(4) crosslinking the substituted multifunctional group ligands with each other.

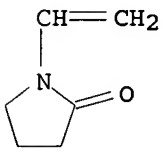
IT **9003-39-8, Polyvinylpyrrolidone**
(nanoparticle polymeric connector; water-soluble nanoparticles stabilized with multi-functional group ligands and method of preparation thereof)

RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

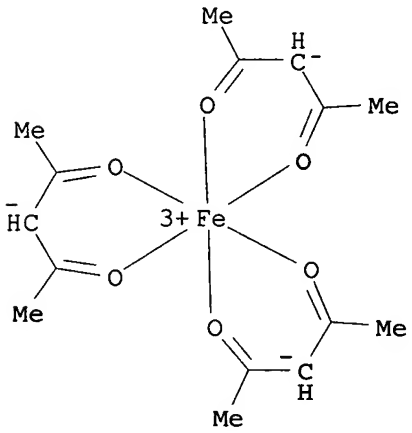
CRN 88-12-0
CMF C6 H9 N O



IT **14024-18-1, Iron** triacetyl acetonate
(water-soluble nanoparticles stabilized with multi-functional group ligands and method of preparation thereof)

RN 14024-18-1 HCAPLUS

CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)-(9CI) (CA INDEX NAME)



IC ICM B82B003-00

CC 76-2 (**Electric** Phenomena)
Section cross-reference(s): 1, 6, 14, 33, 35, 63

IT 107-43-7D, Lycine, polymers **9003-39-8, Polyvinylpyrrolidone** 9011-14-7, Polymethyl methacrylate 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Polyethylene glycol 26099-09-2, Polymaleic acid

26780-50-7, Polylactide-co-glycolide 28158-18-1
(nanoparticle polymeric connector; water-soluble nanoparticles stabilized with multi-functional group ligands and method of preparation thereof)
IT 1317-61-9, **Iron** oxide, uses
(nanoparticles; water-soluble nanoparticles stabilized with multi-functional group ligands and method of preparation thereof)
IT 124-22-1, Lauryl amine 143-07-7, Lauric acid, reactions
2418-14-6, 2,3-DiMercaptosuccinic acid 13463-40-6, **Iron** pentacarbonyl **14024-18-1**, **Iron** triacetyl acetonate
(water-soluble nanoparticles stabilized with multi-functional group ligands and method of preparation thereof)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 2 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2005:824449 HCAPLUS
DOCUMENT NUMBER: 143:232678
TITLE: Methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers
INVENTOR(S): Eshraghi, Ray R.; Lin, Changqing; Lin, Jung-chou; Ketterer, Martin E.
PATENT ASSIGNEE(S): Microcell Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 28 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005181269	A1	20050818	US 2005-30703	2005 0106
WO 2005094417	A2	20051013	WO 2005-US4308	2005 0211

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:	US 2004-544729P	P	2004 0213
	US 2005-30703	A	2005

0106

AB The present invention relates to a microfibrous fuel cell structure of elongated form with a longitudinal axis. Such microfibrous fuel cell comprises electrocatalyst layers supported by a fiber network formed of unidirectional or substantially unidirectional conductive fibers. The conductive fibers of such fiber network are oriented parallelly or substantially parallelly to the longitudinal axis of the fuel cell, therefore allowing such fiber network to conform to the curvature of the microfibrous fuel cell along the radial direction but without causing overbending of the individual fibers.

IC ICM H01M004-86
ICS H01M008-10; H01M004-88; H01M004-96

INCL 429044000; 429031000; 429032000; 502101000; 429033000; 502527140

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT **Carbon fibers**, uses
(aromatic acetylene-derived polymer-derived; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(cellulose fiber-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Catalysts**
(electrocatalysts; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(epoxy fiber-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
Polysulfones, uses
(methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(phenolic resin-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(phthalonitrile fiber-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(pitch-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(polyacrylonitrile-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT **Carbon fibers**, uses
(rayon-based; methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

IT 7439-88-5, Iridium, uses 7439-89-6, **Iron**, uses 7439-98-7, Molybdenum, uses 7440-02-0, **Nickel**, uses 7440-03-1, Niobium, uses 7440-05-3, **Palladium**, uses 7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-18-8, Ruthenium, uses 7440-33-7, Tungsten, uses 7440-57-5, Gold, uses 12623-53-9 12779-05-4 50942-39-7 51402-57-4

60501-15-7 467421-01-8
(methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)
IT 56-81-5, Glycerol, uses 9002-84-0, Ptfe 9002-89-5, **Polyvinyl alcohol** 9003-39-8, Polyvinyl pyrrolidone 25322-68-3, Peg
(methods of fabrication of microfibrous fuel cell assemblies comprising fiber-supported electrocatalyst layers)

L102 ANSWER 3 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:547804 HCAPLUS
DOCUMENT NUMBER: 143:88764
TITLE: Metal/plastic hybrids and shaped body produced therefrom
INVENTOR(S): Greiner, Robert; Kapitza, Heinrich; Ochsenkuehn, Manfred
PATENT ASSIGNEE(S): Siemens Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005057590	A1	20050623	WO 2004-EP53381	20041209

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DE 2003-10358342 A 20031212

AB By combining metallic additives in plastic, sp. resistances of <10-2 Ω·cm can be obtained with material that also has suitable characteristics for an injection molding process.
IC ICM H01B001-22
ICS B29C070-88; C08K003-08
CC 76-2 (**Electric** Phenomena)
Section cross-reference(s): 37, 55, 56
IT Conducting **polymers**
Soot
(in hybrid materials and shaped body produced therefrom)
IT **Carbon fibers**, uses
Polyamides, uses
(in hybrid materials and shaped body produced therefrom)
IT Electric conductors

Hybrid **organic**-inorganic materials
Thermal conductors
(**metal**/plastic hybrids and shaped body produced therefrom)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 4 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:405116 HCAPLUS
DOCUMENT NUMBER: 142:431661
TITLE: Curable compositions, cured products thereof, and printed circuit boards using them
INVENTOR(S): Sasaki, Masaki; Kusama, Masatomo; Ushiki, Shigeru
PATENT ASSIGNEE(S): Taiyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005120142	A2	20050512	JP 2003-353723	2003 1014

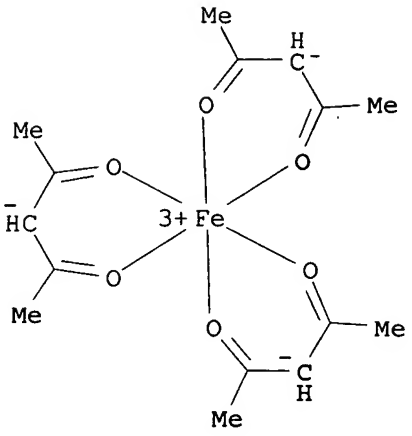
PRIORITY APPLN. INFO.: JP 2003-353723 2003 1014

AB The compns. with good curability and storage stability comprise (A) carboxy-containing resins, (B) compds. having oxetanyl groups, and (C) acetylacetone metal complexes. Thus, styrene-**acrylic acid** copolymer (Joncryl 68) 25, 1,4-bis[(3-ethyl-3-oxetanylmethoxy)methyl]benzene 25, vanadium acetylacetonate 1, and propylene glycol monomethyl ether acetate 25 parts were blended, applied on a Cu-clad laminate, and **heated** to 170° for 60 min to form a **coating** showing good curability, **heat** resistance, pencil hardness 4H, and good Au plating resistance.

IT **7439-89-6D**, **Iron**, acetylacetonates
14024-18-1, **Iron** acetylacetonate
(curing catalyst; carboxy-containing resin-oxetanyl compound-acetylacetone metal complex compns. with good curability and storage stability for printed circuit boards)
RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)-(9CI) (CA INDEX NAME)



IC ICM C08L101-08
ICS C08K005-10; C08K005-1525; C08K005-29; C08K005-3492; H05K001-03

CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38, 74, **76**

ST copper clad laminate **coating** acrylic polymer oxetane acetylacetone complex; printed circuit board carboxyl polymer oxetane blend **coating**

IT Electric insulators
(**coatings**; carboxy-containing resin-oxetanyl compound-acetylacetone metal complex compns. with good curability and storage stability for printed circuit boards)

IT 3264-82-2, **Nickel** acetylacetonate **7439-89-6D**, **Iron**, acetylacetonates 7440-32-6D, Titanium, acetylacetonates 13476-99-8 13963-57-0, Aluminum acetylacetonate **14024-18-1**, **Iron** acetylacetonate 14024-48-7 14024-58-9, Acetylacetonemanganese(II) 14024-63-6, Zinc acetylacetonate 14220-26-9, Copper acetylacetonate 14284-89-0, Manganese(III) acetylacetonate 16009-86-2, Tin acetylacetonate 17501-44-9, Zirconium acetylacetonate 21679-31-2, Chromium acetylacetonate 21679-46-9, **Cobalt**(III) acetylacetonate
(curing catalyst; carboxy-containing resin-oxetanyl compound-acetylacetone metal complex compns. with good curability and storage stability for printed circuit boards)

IT 79-10-7DP, **Acrylic acid**, esters with epoxy resins 106-89-8DP, Epichlorohydrin, reaction products with bisphenol F-**based** epoxy resin 108-30-5DP, Succinic anhydride, reaction products with epoxy resin acrylates 359403-20-6P, Epiclon N 695 ester with **acrylic acid** and tetrahydrophthalic anhydride
(solder resists containing; carboxy-containing resin-oxetanyl compound-acetylacetone metal complex compns. with good curability and storage stability for printed circuit boards)

L102 ANSWER 5 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:155755 HCAPLUS
DOCUMENT NUMBER: 142:241330
TITLE: Aromatic polycarbonate compositions with improved melt stability and electric properties
INVENTOR(S): Miyamoto, Akira; Shibuya, Kazuhiro
PATENT ASSIGNEE(S): Asahi Kasei Chemical Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005048048	A2	20050224	JP 2003-281196	2003 0728

PRIORITY APPLN. INFO.: JP 2003-281196 2003 0728

AB The compns., useful as insulators for electronic parts, comprise (A) 100 weight parts **polymers** mainly containing aromatic polycarbonates, (B) 1-200 weight parts reinforcements and/or fillers, (C) organic acid compound (derivs.), adjusting pH (JIS K 5101) of mixture of B and C to 6.0-8.0 by controlling weight parts of C, and optionally (D) 0.001-10 weight parts **organic** alkali **metal** salts and/or **organic** alkaline earth **metal** salts and (E) 0.01-10 weight parts fluoropolymers. Thus, a composition containing bisphenol A-diphenyl carbonate copolymer 100, Micro Ace P 3 (talc) 10, and p-toluenesulfonic acid 0.3 weight part was injection-molded to give a test piece showing dielec. breakdown voltage 33.0 MV/m.

IC ICM C08L069-00
ICS C08K005-42; C08L027-12

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): **76**

ST arom polycarbonate org acid elec insulator; alkali alk earth **metal** salt **org** fireproofing; fluoropolymer fireproofing electronic part arom polycarbonate; bisphenol diphenyl carbonate **polymer** talc toluenesulfonic acid

IT **Carbon fibers**, uses
Glass fibers, uses
(aromatic polycarbonate compns. containing reinforcements and/or fillers and organic acid compds.)

L102 ANSWER 6 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:586673 HCAPLUS
DOCUMENT NUMBER: 143:119516
TITLE: Plasma-treated textile surfaces for adsorptive filter materials
INVENTOR(S): Boehringer, Bertram; Heinrich, Peter; Stoll, Thomas; Moskopp, Michael
PATENT ASSIGNEE(S): Bluecher GmbH, Germany
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

DE 10356776 A1 20050707 DE 2003-10356776
2003
1202
DE 20319676 U1 20050217 DE 2003-20319676
2003
1218
WO 2005053838 A1 20050616 WO 2004-EP10036
2004
0909
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: DE 2003-10356776 IA
2003
1202

AB An adsorption filter material which protects against chemical poisons, e.g., chemical warfare agents, comprises preferably a multi-layer film on a laminar support such as synthetic fibers or thermoplastic fibers. The film may be a polymerizable material such as silicone oils or organopolysiloxanes. The textile may also be impregnated with catalytic materials such as Cu, Ag, Cd, Pt, Pd, Zn, or Hg ions. The plasma treatment adjusts the surface properties, in particular the surface finish and surface reactivity, to optimize performance. The textiles are suitable for use in protective clothing, gloves, and coverings.

IC ICM A62D005-00
ICS A41D013-00
CC 59-5 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 40, 48

IT **Catalysts**
Chemical warfare agents
Filters
Membranes, nonbiological
Textiles
(plasma-treated textile surfaces for adsorptive filter materials for protective clothing)

IT **Carbon fibers**, uses
(plasma-treated textile surfaces for adsorptive filter materials for protective clothing)

IT 7439-97-6, Mercury, uses 7440-05-3, **Palladium**, uses 7440-06-4, Platinum, uses 7440-22-4, Silver, uses 7440-43-9, Cadmium, uses 7440-50-8, Copper, uses 7440-66-6, Zinc, uses
(plasma-treated textile surfaces for adsorptive filter materials for protective clothing)

IT 107-13-1, Acrylonitrile, uses 9002-84-0, Polytetrafluoroethylene 9002-85-1, Polyvinylidene chloride 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9002-89-5, **Polyvinyl alcohol** 9003-07-0, Polypropylene 25038-54-4, Polyamide 6, uses 32131-17-2, Polyamide 66, uses 857635-67-7, Elastodien
(plasma-treated textile surfaces for adsorptive filter

materials for protective clothing)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 7 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2006-109383 [11] WPIX
CROSS REFERENCE: 2004-347870 [32]
DOC. NO. NON-CPI: N2006-094955
DOC. NO. CPI: C2006-038549
TITLE: Composition, useful in electronic devices (e.g. light **emitting** diode, phototransistor and phototube), comprises an aqueous dispersion of at least one polyaniline and at least one colloid-forming polymeric acid.
DERWENT CLASS: A26 A85 B04 L03 S03 U11 U12
INVENTOR(S): HSU, C; UCKERT, F P
PATENT ASSIGNEE(S): (DUPO) DU PONT DE NEMOURS & CO E I
COUNTRY COUNT: 109
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2005121217	A1	20051222	(200611)*	EN	46

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005121217	A1	WO 2005-US8563	20050316

PRIORITY APPLN. INFO: US 2004-803113 20040317
AN 2006-109383 [11] WPIX
CR 2004-347870 [32]
AB WO2005121217 A UPAB: 20060310
NOVELTY - Composition (I) comprising an aqueous dispersion of at least one polyaniline (A) and at least one colloid-forming polymeric acid (B), is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) an electronic device comprising at least one layer (II) comprising (I), which comprises (A) and (B);
(2) producing (A) comprising polymerizing aniline monomers (C) in the presence of (B); and
(3) an organic electronic device comprising a buffer layer deposited from an aqueous dispersion of polyaniline and at least colloid-forming polymeric acid.
USE - (I) is useful in electronic devices (a thin field effect transistor, a field effect resistance device, photosensor, photoswitch, light **emitting** diode, light-**emitting** diode display, phototransistor, phototube, IR

detector, diode laser, electrochemical displays, electromagnetic shielding device, solid electrolyte capacitors, energy storage device, memory storage device, biosensor, photoconductive cell, photovoltaic device, solar cell or diode) (claimed).

(I) is useful in electronically conductive and semi-conductive layers in electronic devices and other applications.

ADVANTAGE - (I) is useful to prepare improved properties of buffer layers. (I) has improved conductive polyaniline with good processability and increased conductivity.

Dwg.0/2

L102 ANSWER 8 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2006-026498 [03] WPIX
DOC. NO. NON-CPI: N2006-023056
DOC. NO. CPI: C2006-008948
TITLE: Preparation of an alloy nanoparticles comprises contacting metal-containing components with a reducing agent and capping agent; heating and cooling the obtained reaction mixture; and precipitating alloy nanoparticles from the mixture.
DERWENT CLASS: A81 M22 M26 P53
INVENTOR(S): HAN, L; HE, T; KARIUKI, N N; LUO, J; MAYE, M M; WANG, L; ZHONG, C
PATENT ASSIGNEE(S): (HANL-I) HAN L; (HETT-I) HE T; (KARI-I) KARIUKI N N; (LUOJ-I) LUO J; (MAYE-I) MAYE M M; (WANG-I) WANG L; (ZHON-I) ZHONG C; (HOND) HONDA MOTOR CO LTD; (UYNY) UNIV NEW YORK STATE RES FOUND
COUNTRY COUNT: 110
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005235776	A1	20051027	(200603)*		17
WO 2005118184	A2	20051215	(200603)	EN	

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005235776	A1 CIP of	US 2004-830986	20040422
		US 2004-944461	20040917
WO 2005118184	A2	WO 2005-US13563	20050421

PRIORITY APPLN. INFO: US 2004-944461 20040917; US 2004-830986 20040422

AN 2006-026498 [03] WPIX
AB US2005235776 A UPAB: 20060112
NOVELTY - Preparation of an alloy nanoparticles comprises e.g. contacting at least two metal-containing components with a

reducing agent and at least one capping agent in a solvent system to form a reaction mixture; heating and cooling the reaction mixture; and precipitating alloy nanoparticles from the cooled reaction mixture.

DETAILED DESCRIPTION - Preparation of alloy nanoparticles comprises:

(1) either contacting at least two metal-containing components with a reducing agent and at least one capping agent in a solvent system to form a reaction mixture; heating and cooling the reaction mixture; and precipitating alloy nanoparticles from the cooled reaction mixture; or

(2) contacting at least one first metal-containing component with a reducing agent to form a first reaction mixture; heating the first reaction mixture to a first temperature; incorporating at least one second metal-containing component different from the first metal-containing component and at least one capping agent into the first reaction mixture at the first temperature to form a second reaction mixture; heating the second reaction mixture to a second temperature; cooling the second reaction mixture; and precipitating alloy/metal nanoparticles from the cooled second reaction mixture.

An INDEPENDENT CLAIM is also included for an alloy nanoparticle comprising a nanoparticle having two or more metals distributed and dispersed substantially evenly throughout a volume of the nanoparticle, where the particle size of 95% of the nanoparticles is between 1-6 nm.

USE - The invention deals with the preparation of alloy nanoparticles.

ADVANTAGE - The method produces metal-containing nanoparticles with the desired dispersion, composition and distribution characteristics of the metal **catalyst.**

Dwg.0/5

L102 ANSWER 9 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-732420 [75] WPIX
DOC. NO. NON-CPI: N2005-602891
DOC. NO. CPI: C2005-223326
TITLE: Organic composition for organic electronic device, e.g. photosensor, comprises polymer consisting of polypyrrole and/or polythiophene, colloid-forming polymeric acid(s), and organic liquid(s).
DERWENT CLASS: A14 A26 A85 A89 L03 U12
INVENTOR(S): HSU, C; MACPHERSON, C D; SKULASON, H
PATENT ASSIGNEE(S): (HSUC-I) HSU C; (MACP-I) MACPHERSON C D; (SKUL-I) SKULASON H; (DUPO) DU PONT DE NEMOURS & CO E I
COUNTRY COUNT: 109
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005209388	A1	20050922	(200575)*		17
WO 2005090436	A1	20050929	(200575)	EN	

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005209388	A1	US 2004-803114	20040317
WO 2005090436	A1	WO 2005-US8764	20050316

PRIORITY APPLN. INFO: US 2004-803114 20040317
AN 2005-732420 [75] WPIX
AB US2005209388 A UPAB: 20051122
NOVELTY - An organic composition comprises a polymer consisting of polypyrrole and/or polythiophene, colloid-forming polymeric acid(s), and organic liquid(s).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for producing a composition, comprising polymerizing monomer(s) consisting of pyrrole, and/or thiophene in the presence of colloid-forming polymeric acid(s) in aqueous liquid medium, to form an aqueous dispersion; removing an amount of aqueous liquid medium from the aqueous dispersion to form partially dried solids, and dispersing the partially dried solids in high boiling organic liquid(s).

USE - For organic electronic device, e.g. photosensor, photoswitch, phototransistor, photoconductive cell, photoresistor, biosensor, phototube, infrared detectors, photovoltaic device, solar cell, light-**emitting** diode, light-**emitting** diode display, electrochromic display, thin film transistor, electromagnetic shielding device, photodiode, solid electrolyte capacitors, field effect resistance device, memory storage device, or diode laser (claimed).

ADVANTAGE - The composition has improved physical and electrical properties.

Dwg.0/2

L102 ANSWER 10 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2004:269890 HCAPLUS
DOCUMENT NUMBER: 140:295996
TITLE: Method of producing **electron emitting device** using **carbon fiber**, electron source and image forming apparatus, and ink for producing **carbon fiber**
INVENTOR(S): Kawate, Shinichi; Tsukamoto, Takeo
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004063839	A1	20040401	US 2003-661627	2003 0915
JP 2004139973	A2	20040513	JP 2003-306158	

					2003 0829
JP 3625467	B2	20050302			
CN 1497639	A	20040519	CN 2003-159844		2003 0926
PRIORITY APPLN. INFO.:			JP 2002-280420	A	2002 0926
			JP 2003-306158	A	2003 0829

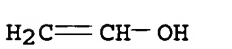
AB The present invention provides a method of producing an **electron emitting device** using a C fiber using a **catalyst**, capable of preferably growing C fibers at a low **temperature** without the need of a high **temperature** process for growing the C fibers or a high **temperature** alloy process on a **substrate**, and growing the C fibers by a d. capable of applying an elec. field necessary for the electron emission further effectively. Using alloy **particles** containing **Pd** and at least one element selected from the group consisting of **Fe**, **Co**, **Ni**, Y, Rh, Pt, La, Ce, Pr, Nd, Gd, Tb, Dy, Ho, Er, and Lu as the **catalyst**, a dispersion of the alloy **particles** is applied on a C fiber producing subject **surface** for providing the alloy **particles** so as to grow the C fibers.

IT **9002-89-5, Polyvinyl alcohol**
9003-01-4, Polyacrylic acid
9003-39-8, Polyvinylpyrrolidone
(dispersant; method of producing **electron emitting device** using **carbon fiber**)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

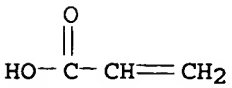
CRN 557-75-5
CMF C2 H4 O



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

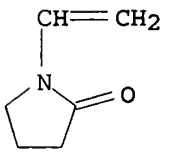
CRN 79-10-7
CMF C3 H4 O2



RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0
CMF C6 H9 N O



IC ICM C23C016-26
ICS C08K003-08
INCL 524439000; 427180000; 427249100; 427077000; 427249600; 427249800; 423414000
CC 76-12 (**Electric** Phenomena)
ST **electron emitting device**
carbon fiber
IT Nanotubes
(carbon; method of producing **electron emitting device** using **carbon fiber**)
IT **Carbon fibers**, uses
(diamond; method of producing **electron emitting device** using **carbon fiber**)
IT Nanofibers
(graphite; method of producing **electron emitting device** using **carbon fiber**)
IT Electron sources
Inks
Optical imaging devices
(method of producing **electron emitting device** using **carbon fiber**, electron source and image forming apparatus, and ink for producing **carbon fiber**)
IT **Carbon fibers**, uses
(method of producing **electron emitting device** using **carbon fiber**, electron source and image forming apparatus, and ink for producing **carbon fiber**)
IT Polymers, uses
(water-soluble, dispersant; method of producing **electron emitting device** using **carbon fiber**)
IT **Palladium** alloy, nonbase
(**particles**; method of producing **electron emitting device** using **carbon fiber**)
IT **9002-89-5**, **Polyvinyl alcohol**
9003-01-4, **Polyacrylic acid**
9003-39-8, **Polyvinylpyrrolidone** 25087-26-7, Polymethacrylic acid

(dispersant; method of producing **electron emitting device** using **carbon fiber**)

IT 7440-44-0, Carbon, uses
(nanotubes; method of producing **electron emitting device** using **carbon fiber**)

IT 11107-69-0 12610-90-1, **Palladium** alloy,**pd**,rh
12623-52-8 37364-37-7, **Cobalt** alloy, **co**,
pd 39398-71-5, **Iron** alloy, **fe**,
pd 56668-76-9 56901-58-7, Erbium alloy, er,**pd**
56901-59-8, Dysprosium alloy, dy, **pd** 59124-21-9,
Gadolinium alloy, gd,**pd** 60391-28-8 75202-87-8,
Palladium alloy, **pd**, y 76776-20-0, Cerium
alloy, ce,**pd** 135647-86-8, **Cobalt** 40,
Palladium 60 (atomic) 587854-57-7 603129-61-9
603131-05-1 603131-07-3 676121-53-2 676121-54-3
(**particles**; method of producing **electron emitting device** using **carbon fiber**)

L102 ANSWER 11 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2004:266976 HCAPLUS
DOCUMENT NUMBER: 140:295989
TITLE: Method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays
INVENTOR(S): Iwaki, Takashi; Tsukamoto, Takeo
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004060477	A1	20040401	US 2003-661626	2003 0915
			<--	
JP 2004139972	A2	20040513	JP 2003-306157	2003 0829
JP 3619240	B2	20050209		
CN 1493721	A	20040505	CN 2003-159461	2003 0925
PRIORITY APPLN. INFO.:			JP 2002-280784 A	2002 0926
			JP 2003-306157 A	2003 0829

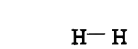
AB A method for manufacturing **carbon fiber**, comprises

the steps of (I) forming a **coated** film containing a **metal organic** compound and a water-soluble **polymer** compound by applying an ink for producing a **catalyst** comprising a solution containing at least the **metal organic** compound and the **polymer** compound onto a **substrate**, (II) forming **catalyst particles** comprising a metal constituting the **metal organic** compound by **heating** the **coated** film, and (III) forming **carbon fibers** by bringing a gas containing carbon into contact with the **catalyst particles**. The **polymer** is one of a compound selected from the group consisting of **polyvinyl alc.**, **polyacrylic acids** and **polyvinylpyrrolidone**. The **metal organic** compound is one of a compound selected from the group consisting of **Pd**, **Fe**, **Co** and **Ni**.

IT **1333-74-0**, **Hydrogen**, uses
(gas; method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)

RN 1333-74-0 HCAPLUS

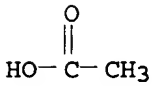
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

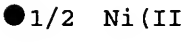


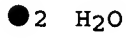
IT **6018-89-9**, **Nickel** acetate tetrahydrate
6147-53-1, **Cobalt** acetate tetrahydrate
7439-89-6, **Iron**, uses **7440-02-0**, **Nickel**, uses **7440-05-3**, **Palladium**, uses **7440-48-4**, **Cobalt**, uses
14024-18-1, **Iron** acetylacetonate
473828-45-4
(method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)

RN 6018-89-9 HCAPLUS

CN Acetic acid, nickel(2+) salt, tetrahydrate (8CI, 9CI) (CA INDEX NAME)

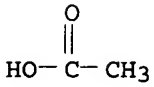






RN 6147-53-1 HCAPLUS

CN Acetic acid, cobalt(2+) salt, tetrahydrate (8CI, 9CI) (CA INDEX NAME)



●1/2 Co(II)

●2 H_2O

RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 7440-02-0 HCAPLUS
CN Nickel (8CI, 9CI) (CA INDEX NAME)

Ni

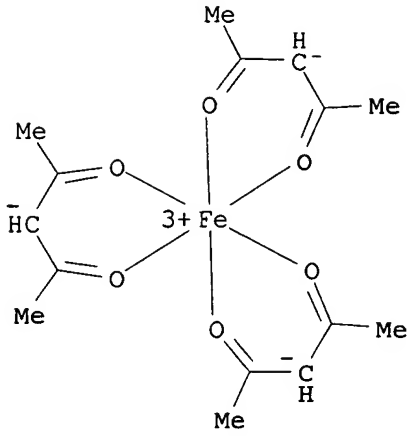
RN 7440-05-3 HCAPLUS
CN Palladium (8CI, 9CI) (CA INDEX NAME)

Pd

RN 7440-48-4 HCAPLUS
CN Cobalt (8CI, 9CI) (CA INDEX NAME)

Co

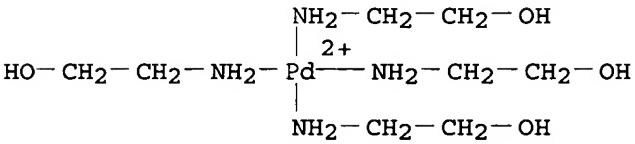
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)-
(9CI) (CA INDEX NAME)



RN 473828-45-4 HCAPLUS
CN Palladium(2+), tetrakis[2-(amino-κN)ethanol]-, (SP-4-1)-, diacetate (9CI) (CA INDEX NAME)

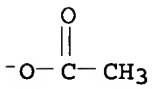
CM 1

CRN 133170-74-8
CMF C8 H28 N4 O4 Pd
CCI CCS



CM 2

CRN 71-50-1
CMF C2 H3 O2



IT **9002-89-5 9003-01-4, Polyacrylic acid 9003-39-8, Polyvinylpyrrolidone**
(method for manufacturing **carbon fibers** using ink **catalyst, electron emitting devices**, and displays)
RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

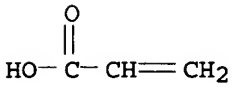
CM 1

CRN 557-75-5
CMF C2 H4 O

RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

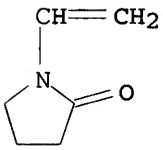
CRN 79-10-7
CMF C3 H4 O2



RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0
CMF C6 H9 N O



IC ICM D01F009-12
ICS C09C001-44
INCL 106472000; 423447300
CC 76-12 (**Electric** Phenomena)
Section cross-reference(s): 74
ST **carbon fiber electron emitting device** display ink **catalyst**
IT Cathodes
Optical imaging devices
(method for manufacturing **carbon fibers** using ink **catalyst, electron emitting devices**, and displays)
IT **Carbon fibers**, uses
(method for manufacturing **carbon fibers** using ink **catalyst, electron emitting devices**, and displays)
IT **1333-74-0, Hydrogen**, uses
(gas; method for manufacturing **carbon fibers** using ink **catalyst, electron emitting devices**, and displays)
IT **6018-89-9, Nickel** acetate tetrahydrate
6147-53-1, Cobalt acetate tetrahydrate
7439-89-6, Iron, uses **7440-02-0, Nickel**, uses **7440-05-3, Palladium**, uses **7440-48-4, Cobalt**, uses

14024-18-1, **Iron** acetylacetonate
473828-45-4
(method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)
IT **9002-89-5 9003-01-4**, **Polyacrylic acid 9003-39-8**, **Polyvinylpyrrolidone**
(method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)
IT 7440-32-6, Titanium, miscellaneous 25583-20-4, Titanium nitride
(method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)
IT 67-63-0, Isopropanol, uses 107-21-1, Ethylene glycol, uses
(method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)
IT 14808-60-7, Quartz, uses
(**substrate**; method for manufacturing **carbon fibers** using ink **catalyst**, **electron emitting devices**, and displays)

L102 ANSWER 12 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2004:305517 HCAPLUS
DOCUMENT NUMBER: 140:312195
TITLE: Manufacture of **carbon fibers**, solutions for preparing metal **catalysts** for it, manufacture of field-emission electron sources and displays using them
INVENTOR(S): Iwaki, Takashi; Tsukamoto, Takeo
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004115959	A2	20040415	JP 2002-280785	2002 0926

PRIORITY APPLN. INFO.: JP 2002-280785 2002 0926

AB The **carbon fibers** are manufactured by (A) applying organometallic compound solns. on a **substrate** for depositing coating layers containing transition metals selected from Ti, V, Cr, Mn, **Fe**, **Co**, **Ni**, and Cu and noble metals selected from **Pd**, Pt, Rh, Ir, Ru, and Os, (B) **heating** the coating layers for forming **catalyst particles** of alloys comprising the transition metals and the noble metals, and (C) contacting C-containing gases with the **catalysts** and **heating.** The coating layers are preferably **heated** under

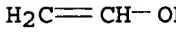
nonoxidative conditions. The coating solns. may contain polymers.

IT **9002-89-5, Polyvinyl alcohol**
9003-39-8, Polyvinylpyrrolidone
(**catalyst** preparation composition containing; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

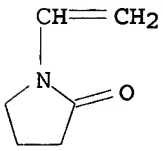
CRN 557-75-5
CMF C2 H4 O



RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0
CMF C6 H9 N O



IT **1333-74-0, Hydrogen**, uses
(manufacturing **carbon fibers** with; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

IT **7439-89-6D, Iron**, complexes with acetylacetone
7440-05-3D, Palladium, complexes with acetylacetone
(preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

RN 7440-05-3 HCAPLUS

CN Palladium (8CI, 9CI) (CA INDEX NAME)

Pd

IC ICM D01F009-127
ICS C01B031-02; H01J009-02
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 56, **76**
ST **carbon fiber** manuf field emission display; transition noble alloy **catalyst carbon fiber**; organometallic coating alloy **catalyst carbon fiber**; electron source field emission **carbon fiber**
IT Transition metals, preparation
(alloys with precious metals, **catalyst** for **carbon fiber** manufacture; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT Noble metals
(alloys with transition metals, **catalyst** for **carbon fiber** manufacture; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT Hydrocarbons, reactions
(gases, manufacturing **carbon fibers** from; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT Field emission displays
Field emitters
(preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT **Carbon fibers**, preparation
(preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT Polymers, uses
(water-soluble, **catalyst** preparation composition containing; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT 7439-88-5, Iridium, uses 7439-96-5, Manganese, uses 7440-04-2, Osmium, uses 7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-18-8, Ruthenium, uses 7440-32-6, Titanium, uses 7440-47-3, Chromium, uses 7440-50-8, Copper, uses 7440-62-2, Vanadium, uses
(alloys containing, **catalyst** for **carbon fiber** manufacture; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT 51287-77-5P 67021-06-1P 75711-40-9P
(**catalyst** for **carbon fiber** manufacture; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)
IT 79-10-7D, **Acrylic acid**, **polymers**

9002-89-5, Polyvinyl alcohol
9003-39-8, Polyvinylpyrrolidone
(**catalyst** preparation composition containing; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

IT 74-85-1, Ethylene, reactions
(manufacturing **carbon fibers** from; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

IT **1333-74-0, Hydrogen**, uses
(manufacturing **carbon fibers** with; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

IT 123-54-6D, Acetylacetone, complexes with **iron** and **palladium** 373-02-4, **Nickel** acetate 5931-89-5, **Cobalt** acetate **7439-89-6D**, **Iron**, complexes with acetylacetone **7440-05-3D**, **Palladium**, complexes with acetylacetone 191214-18-3
(preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

IT 67-63-0, Isopropylalcohol, uses 107-21-1, Ethylene glycol, uses 108-88-3, Toluene, uses 7732-18-5, Water, uses
(solvent for **catalyst** preparation composition; preparation of alloy **catalysts** from organometallic solns. for manufacturing **carbon fibers** for field-emission displays)

L102 ANSWER 13 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2004:962915 HCAPLUS
DOCUMENT NUMBER: 141:380903
TITLE: Process for bonding silicone rubber-coated fabrics by silicone rubber
INVENTOR(S): Pouchelon, Alain; Quemin, Maryline; Dumont, Laurent; Lafaysse, Francis
PATENT ASSIGNEE(S): Rhodia Chimie, Fr.
SOURCE: Fr. Demande, 31 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2854637	A1	20041112	FR 2003-5556	2003 0507
WO 2004101696	A1	20041125	WO 2004-FR1075	2004 0505

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1620520 A1 20060201 EP 2004-742637 2004 0505

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.: FR 2003-5556 A 2003 0507

WO 2004-FR1075 W 2004 0505

AB Silicone rubber-coated fabrics are bonded together by coating the area to be bonded with an adhesive based on thermosetting liquid or pumpable silicone rubber with Brookfield viscosity ≥100 Pa s and extrudability rate ≤20 g/min, assembling the fabric pieces so that air is eliminated in the bondline, and heating. The adhesive contains (a) ≥1 polysiloxane having ≥2 Si-bonded C2-6 alkenyl groups per mol., (b) reinforcing filler, (c) ≥1 **catalyst** based on ≥1 organic peroxide or ≥1 metal compound (such as Pt compound) (optionally, associated with a setting regulator), (d) optionally, nonreinforcing filler, (e) optionally, ≥1 crosslinking polysiloxane having ≥3 H atoms bonded to Si per mol., (f) optionally, ≥1 polysiloxane additive in which ≥50% of the Si atoms are bonded to ≥1 H, (g) optionally, an adhesion promoter, (h) optionally, a polysiloxane resin, and (i) optionally, other additives.

IC ICM C09J005-06
ICS C09J183-07; C09J005-10

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 40

ST filled thermosetting liq silicone rubber adhesive fabric; platinum **catalyst** thermosetting liq silicone rubber adhesive fabric; peroxide **catalyst** thermosetting liq silicone rubber adhesive fabric

IT Peroxides, uses
(crosslinking **catalyst**; bonding silicone rubber-coated fabrics by filled thermosetting liquid silicone rubber adhesives)

IT Acrylic fibers, miscellaneous
Carbon fibers, miscellaneous
Metallic fibers
Polyamide fibers, miscellaneous
Polyester fibers, miscellaneous
Polyolefin fibers
Rayon, miscellaneous
Synthetic rubber, miscellaneous
Vinal fibers
(fabrics; bonding silicone rubber-coated fabrics by filled thermosetting liquid silicone rubber adhesives)

IT Crosslinking **catalysts**
(peroxides and platinum compds.; bonding silicone rubber-coated fabrics by filled thermosetting liquid silicone rubber adhesives)

IT 78-63-7, 2,5-Dimethyl-2,5-di-tert-butylperoxyhexane 133-14-2, 2,4-Dichlorobenzoyl peroxide 7440-06-4D, Platinum, compds.
(crosslinking **catalyst**; bonding silicone rubber-coated fabrics by filled thermosetting liquid silicone rubber adhesives)
IT 7440-42-8, Boron, miscellaneous 9002-89-5, **Polyvinyl alcohol**
(fabrics; bonding silicone rubber-coated fabrics by filled thermosetting liquid silicone rubber adhesives)
IT 471-34-1, Calcium carbonate, uses 1305-62-0, Slaked lime, uses 1314-13-2, Zinc oxide, uses 1332-37-2, **Iron** oxide, uses 1344-28-1, Aluminum oxide, uses 7631-86-9, Silica, uses 7727-43-7, Barium sulfate 13463-67-7, Titanium dioxide, uses 14807-96-6, Talc, uses 14808-60-7, Quartz, uses 14940-68-2, Zircon 144892-73-9
(filler; bonding silicone rubber-coated fabrics by filled thermosetting liquid silicone rubber adhesives)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 14 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:433703 HCAPLUS
DOCUMENT NUMBER: 141:9611
TITLE: Enzyme immobilization for use in biofuel cells and sensors
INVENTOR(S): Minteer, Shelley D.; Akers, Niki L.; Moore, Christine M.
PATENT ASSIGNEE(S): St. Louis University, USA
SOURCE: U.S. Pat. Appl. Publ., 33 pp., which
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004101741	A1	20040527	US 2003-617452	2003 0711
CA 2507455	AA	20040617	CA 2003-2507455	2003 1121
WO 2004051774	A2	20040617	WO 2003-US37336	2003 1121
WO 2004051774	A3	20041125		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,

GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003297552	A1	20040623	AU 2003-297552	2003 1121
EP 1565957	A2	20050824	EP 2003-812443	2003 1121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2006508519	T2	20060309	JP 2004-570766	2003 1121

PRIORITY APPLN. INFO.:	US 2002-429829P	P	2002 1127
	US 2003-486076P	P	2003 0710
	US 2003-617452	A	2003 0711
	WO 2003-US37336	W	2003 1121

OTHER SOURCE(S): MARPAT 141:9611

AB Disclosed are bioanodes comprising a quaternary ammonium treated Nafion polymer membrane and a dehydrogenase incorporated within the treated Nafion polymer. The dehydrogenase catalyzes the oxidation of an organic fuel and reduces an adenine dinucleotide. The ion conducting polymer membrane lies juxtaposed to a polymethylene green redox polymer membrane, which serves to electro-oxidize the reduced adenine dinucleotide. The bioanode is used in a fuel cell to produce high power densities.

IC ICM H01M004-90
ICS H01M004-96; H01M008-10; C12N011-08

INCL 429043000; 429044000; 429042000; 429030000; 429013000; 435180000

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 7, 38

IT **Catalysts**
(electrocatalysts; enzyme immobilization for use in biofuel cells and sensors)

IT Carbon black, uses
Carbon fibers, uses
Carbonaceous materials (technological products)
Metals, uses
Oxides (inorganic), uses
(electron conductor; enzyme immobilization for use in biofuel cells and sensors)

IT **Carbon fibers**, uses
(fabrics, electron conductor; enzyme immobilization for use in biofuel cells and sensors)

IT 7439-89-6, **Iron**, uses 7439-97-6, Mercury, uses 7440-02-0, **Nickel**, uses 7440-06-4, Platinum, uses 7440-22-4, Silver, uses 7440-33-7, Tungsten, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses 7782-42-5, Graphite, uses

11129-18-3, Cerium oxide 12597-68-1, Stainless steel, uses 12612-50-9, Molybdenum sulfide
(electron conductor; enzyme immobilization for use in biofuel cells and sensors)

IT 61-73-4, Methylene blue 92-31-9, Toluidine blue o 92-82-0D, Phenazine, derivs. 92-84-2, Phenothiazine 98-86-2, Acetophenone, uses 135-67-1, Phenoxazine 139-85-5, 3,4-Dihydroxybenzaldehyde 521-31-3, Luminol 531-53-3, Azure A 531-55-5, Azure B 553-24-2, Neutral red 2381-85-3, Nile blue 2679-01-8, Methylene green 3625-57-8, Nile blue A 7440-04-2D, Osmium, phenanthrolinedione 9003-01-4, **Polyacrylic acid** 25013-01-8, Polypyridine 25233-30-1, Polyaniline 25233-34-5, Polythiophene 25265-76-3, Diaminobenzene 27318-90-7, 1,10-Phenanthroline-5,6-dione 30604-81-0, Polypyrrole 37251-80-2, Toluidine blue 38096-29-6, Diaminopyridine 51878-01-4 54258-43-4, 1,10-Phenanthroline-5,6-diol 68455-94-7D, Nitrofluorenone, derivs. 74485-93-1, Poly(difluoroacetylene) 86090-24-6, Brilliant cresyl blue 87257-37-2, Polythionine 103737-36-6, Toluene blue 104934-50-1, Poly(3-hexylthiophene) 126213-51-2, Poly(3,4-ethylenedioxythiophene) 142189-51-3, Poly(thieno[3,4-b]thiophene 150645-85-5, Poly(neutral red) 150645-86-6, Poly(methylene blue) 153312-51-7, Poly(3-(4-fluorophenyl)thiophene 161201-31-6 193265-88-2, Phenothiazin-5-ium, 3-(dimethylamino)-7-(methylamino)-, chloride homopolymer 259737-85-4, Poly(3,4-ethylenedioxypyrrole) 308284-47-1, Benzo[a]phenoxazin-7-ium, 5-amino-9-(diethylamino)-, sulfate (2:1) homopolymer 692776-93-5
(enzyme immobilization for use in biofuel cells and sensors)

IT 1910-42-5, Methylviologen 3546-21-2, Ethidium 7440-21-3, Silicon, uses 7440-56-4, Germanium, uses 7773-52-6, Hexadecylpyridinium 12678-01-2D, Phenanthroline, metal complex 13096-46-3, Benzyl viologen 14708-99-7, Tris(1,10-phenanthroline)**iron**(2+) 14798-03-9, Ammonium, uses 15158-62-0, Tris(2,2'-bipyridine)ruthenium(2+) 16749-13-6, Phosphonium 16969-45-2, Pyridinium 17009-90-4, Imidazolium 37275-48-2D, Bipyridyl, metal complex 48236-06-2, Bis(triphenylphosphine)iminium
(enzyme immobilization for use in biofuel cells and sensors)

IT 15025-74-8, Tris(2,2'-bipyridine)**iron**(2+) 23648-06-8, Tris(2,2'-bipyridine)osmium(2+) 80498-15-3, Laccase
(enzyme immobilization for use in biofuel cells and sensors)

L102 ANSWER 15 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-048002 [05] WPIX
DOC. NO. CPI: C2005-016374
TITLE: Particulate composition used as bleaching composition, contains bleach **catalyst**, specific salt, binder, water, polymer and/or dispersing agent, filler, plasticizer, white pigment, dye, anti-adherent and/or lubricant, and additive.
DERWENT CLASS: A97 D25 E19 E31
INVENTOR(S): BERTRAM, H; DREYER, P; HAZENKAMP, M; KVITA, P; NAGEL, J; WEINGARTNER, P
PATENT ASSIGNEE(S): (CIBA) CIBA SPECIALTY CHEM HOLDING INC
COUNTRY COUNT: 109
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

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      ------------------------------------------------
      WO 2004104155   A1 20041202 (200505)* EN   76
         RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE
             IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR
             TZ UG ZM ZW
          W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU
             CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN
             IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW
             MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY
             TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
      EP 1625196      A1 20060215 (200613)  EN
          R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC
             NL PL PT RO SE SI SK TR

APPLICATION DETAILS:

      PATENT NO      KIND                  APPLICATION         DATE
      ------------------------------------------------------------------
      WO 2004104155   A1                  WO 2004-EP50766     20040512
      EP 1625196      A1                  EP 2004-732327      20040512
                                          WO 2004-EP50766     20040512

FILING DETAILS:

      PATENT NO       KIND                  PATENT NO
      ------------------------------------------------
      EP 1625196      A1 Based on         WO 2004104155

PRIORITY APPLN. INFO: EP 2004-100105       20040115; EP
                      2003-101450       20030521
AN    2005-048002 [05]   WPIX
AB    WO2004104155 A UPAB: 20050124
      NOVELTY - Particulate composition contains particulate bleach
      catalyst(s) (in weight%) (1-40), and alkali metal salt,
      alkaline earth metal salt and/or aluminum salt(s) (0-65),
      water-soluble binder(s) (5-90), water (0.05-12), and water-soluble
      polymer(s) and/or dispersing agent(s) (0-70), filler(s) (0-90),
      plasticizer(s) (0-8), white pigment(s) (0-50), water-soluble
      dye(s) (0-5), anti-adherent and/or lubricant(s) (0-5), and
      additive(s) (0-20).
           DETAILED DESCRIPTION - A particulate composition contains
      (based on total weight of particulate composition):
           (A) finely particulate bleach catalyst(s) (1-40);
           (B) alkali metal salt, alkaline earth metal salt and/or
      aluminum salt(s) (0-65);
           (C) water-soluble binder(s) (5-90);
           (D) water (0.05-12); and
           (E) filler(s) (0-90);
           (F) water-soluble polymer(s) and/or dispersing agent(s)
      (0-70);
           (G) plasticizer(s) (0-8);
           (H) white pigment(s) (0-50);
           (I) water-soluble dye(s) (0-5);
           (J) anti-adherent and/or lubricant(s) (0-5); and
           (K) additive(s) (0-20).
           The additive is chosen from optical brightener, dirt
      suspending agent, pH regulator, foam regulator, salt for
      regulating spray drying and granulating property, and fragrance,
      preservative, wetting agent, dissolution accelerator, powdered or
      fibrous cellulose as disintegrant, antistatic agent, fabric
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conditioner, enzyme, toning agent, non-ionic surfactant and polymer. The composition prevents staining of textile by dyes in washing liquor, during washing. **Catalyst** has average particle size (X50) of less than 35 mu m. Binder has sealing property.

INDEPENDENT CLAIMS are included for the following:

(1) manufacture of particulate composition, which involves grinding finely particulate bleach **catalyst**, and granulating with other components;

(2) washing, cleaning, disinfecting or bleaching composition, which contains 0-50 weight% of anionic surfactant and/or non-ionic surfactant, preferably 0-30 weight%, 0-70 weight% of builder substance, preferably 0-50 weight%, 1-99 weight% of peroxide or peroxide forming substance, preferably 1-50 weight%, particulate composition and 100 weight% of water. The particulate composition is added such that concentration of metal complex in liquor is 0.05-100 mg/l of liquor, preferably 0.05-50 mg/l of liquor, more preferably 0.05-30 mg/l of liquor, when adding 0.5-20 g/l of bleaching composition to liquor;

(3) peroxide-free washing, cleaning, disinfecting or bleaching composition, which has composition same as that of bleaching composition defined above, excluding peroxide or peroxide forming substance; and

(4) preventing redeposition of migrating dyes, bleaching stains and or soiling on textile material, which involves treating the textile material with particulate composition.

USE - As washing, cleaning, disinfecting or bleaching composition for textile, for preventing bleaching stain or soiling on textile material, redeposition of migrating dyes during washing, and for cleaning hard surfaces (all claimed) e.g. wall tile or floor tile, by reaction with peroxy compound.

ADVANTAGE - The particulate composition has excellent anti-bacterial action, and prevents staining, soiling of textile material, and redeposition of migrating dyes on textile.

Dwg.0/0

L102 ANSWER 16 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-012617 [01] WPIX
CROSS REFERENCE: 2004-347869 [32]
DOC. NO. NON-CPI: N2005-010266
DOC. NO. CPI: C2005-003346
TITLE: Polythiophene-containing composition for electronic device, e.g. photosensor, photoswitch, light-**emitting** diode, or light-**emitting** diode display, comprises aqueous dispersion of polythiophene(s) and colloid-forming polymeric acid.
DERWENT CLASS: A26 A85 A89 G02 L03 U11 U12
INVENTOR(S): CAO, Y; HSU, C; KIM, S; LECLOUX, D; LI, H; MACPHERSON, C D; SKULASON, H; ZHANG, C; LECLOUX, D D
PATENT ASSIGNEE(S): (CAOY-I) CAO Y; (HSUC-I) HSU C; (KIMS-I) KIM S; (LECL-I) LECLOUX D D; (LIHH-I) LI H; (MACP-I) MACPHERSON C D; (SKUL-I) SKULASON H; (ZHAN-I) ZHANG C; (DUPO) DU PONT DE NEMOURS & CO E I
COUNTRY COUNT: 109
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 2004094501 A2 20041104 (200501)* EN 67
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
US 2004254297 A1 20041216 (200501)
EP 1615971 A2 20060118 (200606) EN
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004094501	A2	WO 2004-US12564	20040422
US 2004254297	A1 Provisional	US 2003-464370P	20030422
	CIP of	US 2003-669494	20030924
		US 2004-802704	20040317
EP 1615971	A2	EP 2004-750548	20040422
		WO 2004-US12564	20040422

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1615971	A2 Based on	WO 2004094501

PRIORITY APPLN. INFO: US 2004-802704 20040317; US 2003-464370P 20030422; US 2003-669494 20030924

AN 2005-012617 [01] WPIX
CR 2004-347869 [32]
AB WO2004094501 A UPAB: 20060124
NOVELTY - A polythiophene-containing composition comprises an aqueous dispersion of polythiophene(s) and colloid-forming polymeric acid.

DETAILED DESCRIPTION - A polythiophene-containing composition comprises an aqueous dispersion of polythiophene(s) and colloid-forming polymeric acid. The polythiophene(s) is a compound of formula (Ia or Ib).

R'' = H, alkyl, heteroalkyl, alkenyl, heteroalkenyl, alcohol, amidosulfonate, benzyl, carboxylate, ether, ether carboxylate, ether sulfonate, sulfonate, or urethane;
m = 2 or 3;
n = at least 4;

R'1,R1 = H or alkyl;

R'1R1 = 1-4C alkylene that may optionally be substituted by 1-12C alkyl or aromatic, or 1,2-cyclohexylene radical.

At least one R'' is not H. INDEPENDENT CLAIMS are also included for:

(1) an electrically conductive or semiconductive layer deposited from the above composition;

(2) a buffer layer (120) deposited from a composition comprising an aqueous dispersion polythiophene and colloid-forming polymeric acid;

(3) an electronic device comprising a layer comprising the

above composition;
(4) a thin film field effect transistor having an electrode comprising the above composition; and
(5) producing an aqueous dispersion of polythiophene by polymerizing thiophene monomer(s) of formula (IIa or IIb) in the presence of colloid-forming polymeric acid, oxidizing agent, or **catalyst.**
USE - The composition is used in electronic device, e.g. photosensor, photoswitch, light-**emitting** diode, light-**emitting** diode display, photodetector, phototransistor, photoconductor, phototube, infrared detector, diode laser, electrochromic device, electromagnetic shielding device, solid electrolyte capacitors, energy storage device, field effect resistance device, memory storage device, biosensor, photoconductive cell, photovoltaic device, solar cell, or diode (claimed); or in antistatic coating for plastic and cathode ray tubes, electrode materials for solid electrolyte capacitors, metal anti-corrosion coatings, throughhole plating of printed circuit boards, photodiodes, bio-sensors, photodetectors, rechargeable batteries, photovoltaic devices, or organic electronic device, e.g. organic light **emitting** diode.
ADVANTAGE - The composition has superior electrical properties.
DESCRIPTION OF DRAWING(S) - The figure is a cross-sectional view of the electronic device that comprises the buffer layer.
Light **emitting** diode device 100
Anode layer 110
Buffer layer 120
Electroluminescent layer 130
Injection/transport layer 140
Cathode layer 150
Dwg.1/11

L102 ANSWER 17 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1049345 HCAPLUS
DOCUMENT NUMBER: 142:181686
TITLE: Correlation of properties with preferred orientation in coagulated and stretch-aligned single-wall carbon nanotubes
AUTHOR(S): Badaire, Stephane; Pichot, Vincent; Zakri, Cecile; Poulin, Philippe; Launois, Pascale; Vavro, Juraj; Guthy, Csaba; Chen, Michelle; Fischer, John E.
CORPORATE SOURCE: Centre de Recherche Paul Pascal-CNRS Av, Schweitzer, Pessac, 33600, Fr.
SOURCE: Journal of Applied Physics (2004), 96(12), 7509-7513
CODEN: JAPIAU; ISSN: 0021-8979
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We report structure-property correlations in single-wall **carbon** nanotube (SWNT) **fibers**, among elec., thermal, and chemical parameters with respect to stretch-induced preferential SWNT alignment along the fiber axis. Purified HiPco (high-pressure **CO**) conversion tubes are dispersed with the aid of an anionic surfactant and coagulated in the **co** -flowing stream of an adsorbing polymer. The fibers are then dried, rewetted under tensile load, and redried to improve the alignment. Complete removal of the polymer was assured by

annealing in **hydrogen** at 1000 °C. The degree of alignment was determined by x-ray scattering from individual fibers using a two-dimensional detector. The half width at half maximum describing the axially sym. distribution of SWNT axes decreases linearly from 27.5° in the initial extruded fiber to 14.5° after stretching by 80%. The elec. resistivity, ρ, at 300 K decreases overall by a factor .apprx.4 with stretching, for both as-spun composite and polymer-free annealed fibers. However, the **temperature** dependence ρ(T) is markedly different for the two, implying different electron-transport mechanisms with and without the polymer. Thermal conductivity also improves with increasing alignment, while the absolute values are limited by the disordered network of finite length tubes and bundles. Comparisons are made with results from similar fibers spun from oleum and with magnetically aligned buckypapers.

IT **9002-89-5, Polyvinyl alcohol**
(composites with carbon nanotubes; correlation of properties with preferred orientation in coagulated and stretch-aligned single-wall carbon nanotube-PVA composites with PVA removed)

RN 9002-89-5 HCAPLUS

CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

$H_2C{=}CH{-}OH$

CC 57-8 (Ceramics)
Section cross-reference(s): **76**

IT **9002-89-5, Polyvinyl alcohol**
(composites with carbon nanotubes; correlation of properties with preferred orientation in coagulated and stretch-aligned single-wall carbon nanotube-PVA composites with PVA removed)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 18 OF 37 COMPENDEX COPYRIGHT 2006 EEI on STN
ACCESSION NUMBER: 2004(40):9938 COMPENDEX
TITLE: **Nickel**-coated carbon nanofibers prepared by electroless deposition.
AUTHOR: Arai, Susumu; Endo, Morinobu; Hashizume, Shinji; Shimojima, Yasuho
SOURCE: Electrochemistry Communications v 6 n 10 October 2004 2004.p 1029-1031
CODEN: ECCMF9 ISSN: 1388-2481
PUBLICATION YEAR: 2004
DOCUMENT TYPE: Journal
TREATMENT CODE: Experimental
LANGUAGE: English

AN 2004(40):9938 COMPENDEX

AB **Nickel**-coated carbon nanofibers have been prepared by an electroless deposition process. The carbon nanofibers were pre-treated prior to the **nickel** electroless deposition. **Polyacrylic acid** was used to disperse carbon nanofibers in the pre-treatment solutions. The carbon nanofibers

were coated homogeneously with **nickel** by the electroless deposition process using an electroplating bath containing sodium hypophosphite as a reducing agent. The process resulted in a powdery-**nickel**-coated carbon nanofiber material. $CPY 2004 Elsevier B.V. All rights reserved. 9 Refs.

L102 ANSWER 19 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:868039 HCAPLUS
DOCUMENT NUMBER: 139:366941
TITLE: Method for producing powdery carbon materials
INVENTOR(S): Kasai, Masahiro; Kumashiro, Yoshiaki; Hidaka, Kishio
PATENT ASSIGNEE(S): Hitachi Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003313019	A2	20031106	JP 2002-118658	2002 0422

PRIORITY APPLN. INFO.: JP 2002-118658 2002 0422

AB The carbon material comprises ≥1 μm of particulate cluster consisting of unidirectionally grown fibrous carbon. The carbon consists of outer layer comprising ≥1 layers of carbon mesh and hollow space inside. SiC powder is mixed with a binder, granulated as a particle size of ≥1 μm, and heated at ≥3000° under vacuum of 10-5-10-8 Pa. The binder comprises a pitch material containing **catalysts** (e.g. Ni, V, Ti, Cu, Mn), or a polymeric material (e.g. acrylic polymers, **polyvinyl alc.**, Poly-fluorinated vinylidene). The product is excellent in coating and dispersion, and is useful for high-conductivity materials and high-capacity secondary batteries.

IC ICM C01B031-02
ICS H01M004-58; H01M010-40
CC 49-1 (Industrial Inorganic Chemicals)
Section cross-reference(s): 52
ST **carbon** material **fiber** coating dispersion cond secondary battery
IT Binders
Catalysts
Coating materials
Dispersion (of materials)
Granulation
Secondary batteries
(method for producing powdery carbon materials)
IT 7439-96-5, Manganese, uses 7440-02-0, **Nickel**, uses 7440-32-6, Titanium, uses 7440-50-8, Copper, uses 7440-62-2, Vanadium, uses
(method for producing powdery carbon materials)

L102 ANSWER 20 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-881076 [82] WPIX
DOC. NO. NON-CPI: N2003-703269
DOC. NO. CPI: C2003-249486
TITLE: Adsorption deodorizing material for adsorption deodorizing composite harmful odorants, contains hydrophilic and hydrophobic adsorbents, and **catalyst** material.
DERWENT CLASS: A14 A97 D22 P34
PATENT ASSIGNEE(S): (KOJI-N) KOJIMA KAGAKU KOGYO KK; (KOND-I) KONDO Y; (OOTS-N) OOTSUKA SANGYO INTERIOR KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2003070887	A	20030311	(200382)*		11

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2003070887	A	JP 2001-268560	20010905

PRIORITY APPLN. INFO: JP 2001-268560 20010905
AN 2003-881076 [82] WPIX
AB JP2003070887 A UPAB: 20031223
NOVELTY - The adsorption-deodorizing material contains hydrophilic (2) and hydrophobic (1) absorbents to adsorb an odorant, and a **catalyst** material (3) to decompose adsorbed odorant.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for material which contains the adsorption deodorizing material.
USE - For material (claimed) used for adsorption-deodorizing of composite harmful odorants such as ammonia, hydrogen sulfide, formaldehyde and toluene.
ADVANTAGE - The adsorption-deodorizing material effectively adsorbs composite harmful odorants such as ammonia, hydrogen sulfide, formaldehyde and toluene.
DESCRIPTION OF DRAWING(S) - The figure shows the conceptual diagram of the adsorption deodorizing material.
hydrophobic adsorbent 1
hydrophilic adsorbent 2
catalyst material 3
binding material 4
joint reinforcement 5
Dwg.1/4

L102 ANSWER 21 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:711403 HCAPLUS
DOCUMENT NUMBER: 137:240557
TITLE: Organic positive temperature coefficient thermistor
INVENTOR(S): Handa, Tokuhiko
PATENT ASSIGNEE(S): TDK Corporation, Japan
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6452476	B1	20020917	US 1999-238920	1999 0128
PRIORITY APPLN. INFO.:			US 1999-238920	1999 0128

AB The organic pos. temperature coefficient thermistor of the invention comprises a thermosetting **polymer** matrix, a low-mol. organic compound and conductive particles, each having spiky protuberances, and so can have sufficiently low room-temperature resistance and a large rate of resistance change between an operating state and a non-operating state and in addition, the thermistor can have a small temperature vs. resistance curve hysteresis with no NTC behavior after resistance increases, ease of control of operating temperature, and high performance stability.

IC ICM H01C007-10
ICS H01C007-13

INCL 338-22R

CC 76-2 (**Electric** Phenomena)
Section cross-reference(s): 38

ST thermistor composite **org polymer** ceramic **metal**

IT Paraffin waxes, processes
(HNP 10; PTCR thermistor from thermosetting **polymer**, low. mol. weight organic compound, and spikey conducting particles)

IT Fats and Glyceridic oils, processes
(Japan wax; PTCR thermistor from thermosetting **polymer**, low. mol. weight organic compound, and spikey conducting particles)

IT Ozocerite
Thermistors
(PTCR thermistor from thermosetting **polymer**, low. mol. weight organic compound, and spikey conducting particles)

IT Alcohols, processes
Alkanes, processes
Amides, processes
Amines, processes
Carbon black, processes
Carbon fibers, processes
Epoxy resins, processes
Fats and Glyceridic oils, processes
Fatty acids, processes
Graphitized carbon black
Hydrocarbon waxes, processes
Hydrocarbons, processes
Metals, processes
Phenoxy resins
Polyesters, processes
Polyimides, processes
Polyurethanes, processes
(PTCR thermistor from thermosetting **polymer**, low. mol. weight organic compound, and spikey conducting particles)

IT Phenolic resins, processes
(Sumikon PM; PTCR thermistor from thermosetting **polymer**

, low. mol. weight organic compound, and spikey conducting particles)
IT Silicone rubber, processes
(TSE 3221; PTCR thermistor from thermosetting **polymer**
, low. mol. weight organic compound, and spikey conducting particles)
IT Particles
(ceramic; PTCR thermistor from thermosetting **polymer**,
low. mol. weight organic compound, and spikey conducting particles)
IT Particles
(conducting; PTCR thermistor from thermosetting **polymer**
, low. mol. weight organic compound, and spikey conducting particles)
IT Fatty acids, processes
(esters; PTCR thermistor from thermosetting **polymer**,
low. mol. weight organic compound, and spikey conducting particles)
IT Ceramics
(particles; PTCR thermistor from thermosetting **polymer**
, low. mol. weight organic compound, and spikey conducting particles)
IT Plastics, uses
(thermosetting; PTCR thermistor from thermosetting
polymer, low. mol. weight organic compound, and spikey
conducting particles)
IT 87912-88-7, Epikote 801
(PTCR thermistor from thermosetting **polymer**, low.
mol. weight organic compound, and spikey conducting particles)
IT 21587-74-6, Epomate B002
(PTCR thermistor from thermosetting **polymer**, low.
mol. weight organic compound, and spikey conducting particles)
IT 112-85-6, Behenic acid 7440-02-0, Nickel, properties
(PTCR thermistor from thermosetting **polymer**, low.
mol. weight organic compound, and spikey conducting particles)
IT 68-12-2, Dimethylformamide, processes 94-36-0, Cadox B 75W,
processes 112-84-5, Erucic amide 301-02-0 7440-22-4, Silver,
processes 7782-42-5, Graphite, processes 11104-85-1,
Molybdenum silicide 12045-63-5, Titanium boride 12070-08-5,
Titanium carbide 12070-12-1, Tungsten carbide 12673-69-7,
Potassium titanate 25583-20-4, Titanium nitride 25658-42-8,
Zirconium nitride 50814-64-7, G 110AL 203874-72-0, Kerimid B
601
(PTCR thermistor from thermosetting **polymer**, low.
mol. weight organic compound, and spikey conducting particles)
IT 108-88-3, Toluene, uses
(PTCR thermistor from thermosetting **polymer**, low.
mol. weight organic compound, and spikey conducting particles)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

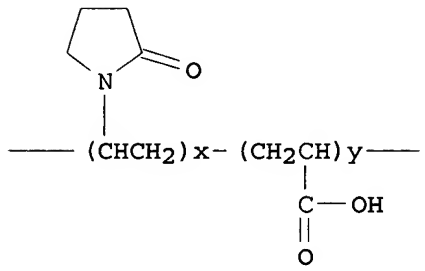
L102 ANSWER 22 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:812118 HCAPLUS
DOCUMENT NUMBER: 137:331142
TITLE: Metal composition for electron-emitting element containing **vinylpyrrolidone-acrylic acid** copolymer, manufacture of electron emitter therefrom, and image-forming apparatus
INVENTOR(S): Tomita, Yasuko; Shimoda, Takashi
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002313224	A2	20021025	JP 2001-117809	20010417
US 2003054093	A1	20030320	US 2002-115090	20020404
US 6630556	B2	20031007		
US 2003216532	A1	20031120	US 2003-462703	20030617
US 6747082	B2	20040608		

PRIORITY APPLN. INFO.:		
JP 2001-117809	A	20010417
US 2002-115090	A3	20020404

GI



I

AB The title metal composition comprises **vinylpyrrolidone-acrylic acid** copolymer ≥0.005% represented by I (x, y = integers). The metal composition further contains a compound containing a Pt element group and a water-soluble poly- and/or mono-valent alc. The image-forming apparatus comprises an electron emitting element which is formed from the metal composition using an ink-jet printing device. The use of the **vinylpyrrolidone-acrylic acid** copolymer in the metal composition forms an elec. conductive film on a substrate which was subject to a water-repelling process.

IT **7440-05-3D, Palladium**, proline or ethylenediamine complex **473828-45-4**
(metal composition for electron-emitter containing **vinylpyrrolidone-acrylic acid** copolymer)

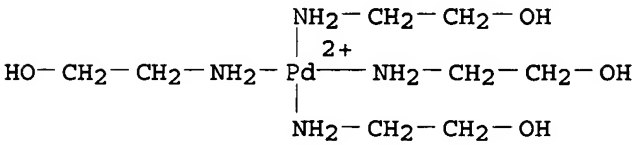
RN 7440-05-3 HCAPLUS
CN Palladium (8CI, 9CI) (CA INDEX NAME)

Pd

RN 473828-45-4 HCAPLUS
CN Palladium(2+), tetrakis[2-(amino-κN)ethanol]-, (SP-4-1)-, diacetate (9CI) (CA INDEX NAME)

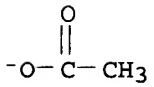
CM 1

CRN 133170-74-8
CMF C8 H28 N4 O4 Pd
CCI CCS



CM 2

CRN 71-50-1
CMF C2 H3 O2



IC ICM H01J009-02
ICS C08L033-02; C08L039-06
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, **76**
ST electron emitter metal compn **vinylpyrrolidone acrylic acid** copolymer
IT Cathodes
Electric conductors
Optical imaging devices
(metal composition for electron-emitter containing **vinylpyrrolidone-acrylic acid** copolymer)
IT 64-17-5, Ethyl alcohol, uses 67-63-0, 2-Propanol, uses 107-15-3D, Ethylenediamine, **palladium** acetate complex 107-21-1, Ethylene glycol, uses 147-85-3D, Proline, **palladium** complex **7440-05-3D**, **Palladium**, proline or ethylenediamine complex 28062-44-4, **Acrylic acid-vinylpyrrolidone** copolymer **473828-45-4**
(metal composition for electron-emitter containing **vinylpyrrolidone-acrylic acid** copolymer)

L102 ANSWER 23 OF 37 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-531370 [50] WPIX
DOC. NO. NON-CPI: N2003-421578
DOC. NO. CPI: C2003-143394
TITLE: Electrode for use in fuel cells, comprises diffusion control layer in contact with catalytic layer.
DERWENT CLASS: A85 L03 X16
INVENTOR(S): FILANOVSKY, B; FINKELSHTAIN, G; KATSMAN, Y; OSHEROV, A; TITELMAN, L
PATENT ASSIGNEE(S): (MORE-N) MORE ENERGY LTD; (FREI-I) FREIDMAN M M
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002155341	A1	20021024	(200350)*		14
WO 2002086986	A2	20021031	(200350)	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
AU 2002307157	A1	20021105	(200433)		
AU 2002307157	A8	20051013	(200611)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002155341	A1	US 2001-837278	20010419
WO 2002086986	A2	WO 2002-US10851	20020408
AU 2002307157	A1	AU 2002-307157	20020408
AU 2002307157	A8	AU 2002-307157	20020408

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002307157	A1 Based on	WO 2002086986
AU 2002307157	A8 Based on	WO 2002086986

PRIORITY APPLN. INFO: US 2001-837278 20010419
AN 2003-531370 [50] WPIX
AB US2002155341 A UPAB: 20030805
NOVELTY - Electrode (40) comprises diffusion control layer (48) in contact with catalytic layer (46).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) Fuel cell (56) for generating electrical power comprising a fuel composition (58) within a fuel chamber, anode having catalytic layer and diffusion control layer, and a cathode. The diffusion control layer is interposed between fuel chamber and catalytic layer; and

(2) Method to regulate power output of fuel cells with anode which involves adjusting viscosity of fuel and permeability of layer through which fuel must diffuse to make contact with the anode, to regulate rate of diffusion of fuel to anode.

USE - For use in fuel cells (claimed) used for portable and

mobile applications.

ADVANTAGE - The diffusion control layer separates fuel composition from the catalytic layer, and controls the arrival rate of fuel molecules at the catalytic layer. Thereby the diffusion control layer enables to produce electricity from fuel cell in a diffusion-controlled and constant manner, without interference due to side products and side reactions. The anode reduces or prevents chemical oxidation and leads to production of a more stable current when compared to a usual anode. The anode allows the addition of higher than accepted concentration of fuel in the anolyte or other fuel composition. The anode prevents fuel cross over, that is passage of fuel through the catalytic layer that may contaminate or otherwise compromise the electrolyte if arriving at the cathode, short circuiting the fuel cell. The fuel composition allows an exceptionally higher power and current density at room temperature for a given volume of anolyte. The high reactivity of the fuel composition eliminates the need for heating the fuels. The viscous component added to the fuel composition lowers the power output with no ill effects and leads to the significant saving of fuel.

DESCRIPTION OF DRAWING(S) - The figure shows the fuel cell.

Electrode 40

Conductive substrate 44

Catalytic layer 46

Diffusion control layer 48

Fuel cell 56

Fuel composition 58

Dwg.5/7

L102 ANSWER 24 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:913571 HCAPLUS

DOCUMENT NUMBER: 136:285722

TITLE: Electrocatalytic dehalogenation of organohalides on a **nickel**(II) tetraazamacrocyclic complex-modified graphite felt electrode

AUTHOR(S): Kashiwagi, Yoshitomo; Kikuchi, Chikara; Anzai, Jun-ichi

CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Tohoku University, Aoba-ku, Aramaki, Sendai, 980-8578, Japan

SOURCE: Journal of Electroanalytical Chemistry (2002), 518(1), 51-55
CODEN: JECHES; ISSN: 0368-1874

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Electrocatalytic dehalogenation of organohalides was studied using a **nickel**(II) tetraazamacrocyclic complex-modified graphite felt electrode. The **nickel**(II) tetraazamacrocyclic complex-modified graphite felt electrode was prepared by attaching **nickel**(II) (6-(2'-hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane) perchlorate chemical to the carboxyl groups of a thin poly(acrylic acid) layer coated on the graphite felt. The modified electrode gave a reversible electron transfer for the **nickel**(II)/**nickel**(I) redox couple in cyclic voltammetry at -0.95 V vs. Ag/AgCl. A preparative electrocatalytic dehalogenation of organohalides was successfully achieved on the modified electrode with an adequate current efficiency (55.6-94.8%), conversion (34.2-100%) and

turnover number of the Ni **catalyst** (667-3333).
CC 72-2 (Electrochemistry)
Section cross-reference(s): 22, 23, 24, 25, 67, 78
ST electrocatalytic dehalogenation organohalide **nickel** tetraazaacrocyclic complex graphite felt electrode; **polyacrylic acid** hydroxyethyltetraazacyclotetrad ecane **nickel** complex ester modified graphite electrode
IT Dehalogenation **catalysts**
(electrochem.; graphite felt modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex)
IT Debromination **catalysts**
(electrochem.; graphite felt modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex for bromoalkanes and bromocyclohexane)
IT Deiodination **catalysts**
(electrochem.; graphite felt modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex for iodocyclohexane and iodobenzene and diodoethane)
IT Debromination
(electrochem.; of bromoalkanes and bromocyclohexane on graphite felt modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotet radecane complex)
IT Deiodination
(electrochem.; of iodocyclohexane and iodobenzene and diodoethane on graphite felt modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex)
IT Chemically modified electrodes
(graphite felt modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotet radecane complex for electrocatalytic dehalogenation)
IT **Carbon fibers**, uses
(graphite, fabrics, felt; electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex for electrocatalytic dehalogenation)
IT Current efficiency
(in electrochem. dehalogenation of organohalides on graphite felt modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotet radecane complex)
IT Cyclic voltammetry
(of graphite felt electrode modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex in MeCN containing Et4NClO4 with and without halo compds.)
IT Dehalogenation
(of organohalides on graphite felt modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)
IT Reduction, electrochemical
(of **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex on modified graphite felt in dehalogenation study of organohalides)
IT Halides

(organohalides; electrochem. dehalogenation of organohalides on graphite felt modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotet radecane complex)

IT 109-65-9, 1-Bromobutane 533-98-2, 1,2-Dibromobutane 591-50-4, Iodobenzene 624-73-7, 1,2-Diiodoethane 637-59-2, 1-Bromo-3-phenylpropane 4282-40-0, 1-Iodoheptane 5401-62-7, 1,2-Dibromocyclohexane
(electrocatalytic dehalogenation using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 626-62-0P, Iodocyclohexane
(electrocatalytic dehalogenation using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 406712-01-4
(electrochem. reductive formation and electrocatalytic dehalogenation using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 9003-01-4, **Polyacrylic acid**
(esterification with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex for modification of graphite felt electrode)

IT 406681-06-9P
(preparation . and reaction with **polyacrylic acid** in modification of graphite felt electrode)

IT 63972-21-4P
(preparation and reaction with **nickel** perchlorate)

IT 104-51-8P, Butylbenzene 768-56-9P 1087-49-6P, 1,6-Diphenylhexane
(preparation in electrocatalytic dehalogenation of bromo(phenyl)propane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 106-97-8P, Butane, properties 106-98-9P, 1-Butene, properties
(preparation in electrocatalytic dehalogenation of bromobutane or dibromobutane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 111-65-9P, Octane, properties
(preparation in electrocatalytic dehalogenation of bromobutane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 110-82-7P, Cyclohexane, properties 110-83-8P, Cyclohexene, properties
(preparation in electrocatalytic dehalogenation of dibromocyclohexane or iodocyclohexane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotet radecane complex)

IT 74-84-0P, Ethane, properties 74-85-1P, Ethene, properties
(preparation in electrocatalytic dehalogenation of diiodoethane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel**-(hydroxyethyl)tetraazacyclotetradecane complex)

IT 71-43-2P, Benzene, properties 92-52-4P, Biphenyl, properties

(preparation in electrocatalytic dehalogenation of iodobenzene using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex)

IT 92-51-3P, Bicyclohexyl
(preparation in electrocatalytic dehalogenation of iodocyclohexane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex)

IT 142-82-5P, Heptane, properties 592-76-7P, 1-Heptene 629-59-4P, Tetradecane
(preparation in electrocatalytic dehalogenation of iodoheptane using graphite felt electrode modified with **polyacrylic acid** esterified with **nickel** -(hydroxyethyl)tetraazacyclotetradecane complex)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 25 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:772905 HCAPLUS
DOCUMENT NUMBER: 133:316512
TITLE: Porous power and ground planes for reduced PCB delamination and better reliability
INVENTOR(S): Japp, Robert; Poliks, Mark
PATENT ASSIGNEE(S): International Business Machines Corporation, USA; IBM United Kingdom Limited
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000065889	A1	20001102	WO 2000-GB1119	2000 0323
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6613413	B1	20030902	US 1999-300762	1999 0426
EP 1190608	A1	20020327	EP 2000-912789	2000 0323
EP 1190608	B1	20030226		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 233466	E	20030315	AT 2000-912789	

				2000 0323
CN 1272038	A	20001101	CN 2000-106424	2000 0406
JP 2000323840	A2	20001124	JP 2000-123963	2000 0425
JP 3495315	B2	20040209		
HK 1028701	A1	20060210	HK 2000-108106	2000 1215
US 2003196749	A1	20031023	US 2003-430989	2003 0506
PRIORITY APPLN. INFO.:			US 1999-300762 A	1999 0426
			WO 2000-GB1119 W	2000 0323

AB Power and ground planes (203, 205) that were used in Printed Circuit Boards (PCBs) and that comprise porous, conductive materials are disclosed. Using porous power and ground plane materials in PCBs allows liqs. (e.g., H2O and/or other solvents) to pass through the power and ground planes (202, 205), thus decreasing failures in PCBs (or PCBs used as laminate chip carriers) caused by cathodic/anodic filament growth and delamination of insulators. Porous conductive materials suitable for use in PCBs may be formed by using **metal**-coated **organic** cloths (such as polyester or liquid crystal **polymers**) or fabrics (such as those made from C/graphite or glass fibers), using metal wire mesh instead of metal sheets, using sintered metal, or making metal sheets (202, 205) porous by forming an array of holes (220) in the metal sheets. Fabrics and mesh may be woven or random. If an array of holes (220) is formed in a metal sheet, such an array may be formed with no addnl. processing steps than were performed using conventional PCB assembly methods.

IC ICM H05K003-46
ICS H05K003-38

CC 76-3 (**Electric** Phenomena)
Section cross-reference(s): 38

IT Adhesion promoters
Laminated materials
Liquid crystals, **polymeric**
Porous materials
Printed circuit boards
Textiles
Wires
(porous power and ground planes for reduced PCB delamination and better reliability)

IT **Carbon fibers**, uses
Epoxy resins, uses
Fluoropolymers, uses
Glass fibers, uses
Metals, uses
Polyester fibers, uses

Polyimides, uses
(porous power and ground planes for reduced PCB delamination and better reliability)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 26 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:786201 HCAPLUS
DOCUMENT NUMBER: 134:72525
TITLE: Fabrication of carbon nanofiber/ **polyvinyl alcohol** composites for electromagnetic interference shielding
AUTHOR(S): Kim, Myung-Soo; Lee, Bang One; Woo, Won Jun; An, Kwang-Hee
CORPORATE SOURCE: Division of Ceramic Processing Research Center, Myoungji University, Yongin, 449-728, S. Korea
SOURCE: Han'guk Seramik Hakhoechi (2000), 37(9), 921-926
CODEN: HSHAF7
PUBLISHER: Korean Ceramic Society
DOCUMENT TYPE: Journal
LANGUAGE: Korean
AB The effectiveness of EMI (electromagnetic interference) shielding of poly(vinyl alc.) composites was investigated using carbon nanofibers prepared by catalytic chemical vapor deposition of ethylene and propane gases over Ni and Ni-Cu **catalysts** as the filler. The elec. conductivity of carbon nanofibers which was regarded as the key property of filler for the application of electromagnetic interference shielding was varied strongly depending on the type of reactant gas and the **catalyst** composition in the range of 4.2.apprx.29 S/cm at a pressure of 1000 psi. The elec. conductivity of carbon nanofibers produced over pure **nickel catalyst** was much higher than that over the alloy **catalysts**, while the elec. conductivity of carbon nanofibers/poly(vinyl alc.) composites showed the highest value with carbon nanofibers produced over Ni:Cu(7:3) **catalyst** . As a result, we concluded that the sp. surface area of filler was also an important factor for elec. conductivity The elec. conductivity of poly-vinyl alc. composites increased exponentially with the increase of filler content and increased to 5.apprx.7 times by the heat treatment of carbon nanofiber at 1,100°C for 1 h, resulting in the improvement of EMI shielding effectiveness by 2.apprx.3 dB.
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37
ST carbon nanofiber **polyvinyl alc** composite; electromagnetic interference shielding **polyvinyl alc** composite
IT **Carbon fibers**, uses
(catalytic chemical vapor deposition of ethylene and propane gases over Ni and Ni-Cu **catalysts** for carbon nanofiber as filler for poly(vinyl alc.) composite for electromagnetic interference shielding)
IT 3251-23-8 13138-45-9, **Nickel** nitrate
(**catalysts**; catalytic chemical vapor deposition of ethylene and propane gases over Ni and Ni-Cu **catalysts** for carbon nanofiber as filler for poly(vinyl alc.) composite for electromagnetic interference shielding)

IT 74-85-1, Ethylene, processes 74-98-6, Propane, processes
(catalytic chemical vapor deposition of ethylene and propane gases over Ni and Ni-Cu **catalysts** for carbon nanofiber as filler for poly(vinyl alc.) composite for electromagnetic interference shielding)

L102 ANSWER 27 OF 37 JICST-EPlus COPYRIGHT 2006 JST on STN
ACCESSION NUMBER: 1010287723 JICST-EPlus
TITLE: Characterization of cabon nanofiber filled poly(vinyl alcohol) coating materials for EMI applications.
AUTHOR: LEE B O; WOO W J; SONG H S; KIM M-S
CORPORATE SOURCE: Myongji Univ.
SOURCE: Tanso Zairyo Gakkai Nenkai Yoshishu, (2000) vol. 27th, pp. 256-257. Journal Code: X0940A (Tbl. 2, Ref. 4)
PUB. COUNTRY: Japan
DOCUMENT TYPE: Conference; Short Communication
LANGUAGE: English
STATUS: New

L102 ANSWER 28 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:268400 HCAPLUS
DOCUMENT NUMBER: 128:326528
TITLE: Silver implantable medical device
INVENTOR(S): Bates, Brian L.; Osborne, Thomas A.; Roberts, Joseph W.; Fearnot, Neal E.; Kozma, Thomas G.; Ragheb, Anthony O.; Voorhees, William D., III
PATENT ASSIGNEE(S): Cook Inc., USA; Med Institute, Inc.
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817331	A1	19980430	WO 1997-US19188	1997 1023
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9749959	A1	19980515	AU 1997-49959	1997 1023
PRIORITY APPLN. INFO.:			US 1996-29158P P	1996 1024
			US 1996-741565 A	1996

1031

US 1997-803843 A 1997 0224

WO 1997-US19188 W 1997 1023

AB A silver implantable medical device includes a structure adapted for introduction into the vascular system, esophagus, trachea, colon, biliary tract, or urinary tract; at least one layer of a bioactive material deposited on one surface of structure; and at least one porous layer deposited over the bioactive material layer deposited on one surface of structure and the bioactive-material-free surface. Also included is a layer or impregnation of silver. Preferably, the structure is a coronary stent. The porous layer is comprised of a polymer applied preferably by vapor or plasma deposition and provides a controlled release of the bioactive material. It is particularly preferred that the polymer is a polyamide, parylene or a parylene derivative, which is deposited without solvents, heat or **catalysts**, merely by condensation of a monomer vapor. Silver is included as a base material, coating or included in a carrier, drug, medicament material utilized with the implantable stent.

IC ICM A61L029-00
ICS A61L031-00; A61L027-00; A61L033-00

CC 63-6 (Pharmaceuticals)

IT Angiogenic factors
Carbon fibers, biological studies
DNA
Fluoropolymers, biological studies
Polyamides, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polysiloxanes, biological studies
Polyurethanes, biological studies
(silver implantable medical device)

IT 50-02-2, Dexamethasone 50-78-2, Aspirin 50-81-7, Ascorbic acid, biological studies 51-61-6, Dopamine, biological studies 59-02-9, α-Tocopherol 64-86-8, Colchicine 67-68-5, Dmso, biological studies 70-51-9, Deferoxamine 79-10-7D, **Acrylic acid, polymers** 79-41-4D, Methacrylic acid, polymers 106-60-5, 5-Aminolevulinic acid 1177-87-3, Dexamethasone acetate 1501-84-4, Rimantadine hydrochloride 1675-54-3D, Bisphenol A diglycidyl ether, polymers 2392-39-4, Dexamethasone sodium phosphate 7439-88-5, Iridium, biological studies 7440-06-4, Platinum, biological studies 7440-22-4, Silver, biological studies 7440-25-7, Tantalum, biological studies 7440-32-6, Titanium, biological studies 7440-33-7, Tungsten, biological studies 7440-39-3D, Barium, compds., biological studies 7440-44-0, Carbon, biological studies 7440-57-5, Gold, biological studies 7553-56-2D, Iodine, compds., biological studies 7761-88-8, Silver nitrate, biological studies 8001-27-2, Hirudin 9002-84-0, Ptfe 9002-88-4, Polyethylene 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate 9005-49-6, Heparin, biological studies 9054-89-1, Superoxide dismutase 10098-91-6, Yttrium 90, biological studies 10102-43-9, Nitric oxide, biological

studies 10198-40-0, **Cobalt**-60, biological studies 12597-68-1, Stainless steel, biological studies 12606-02-9, Inconel 14596-37-3, Phosphorus 32, biological studies 14694-69-0, Iridium-192, biological studies 15421-84-8, Trapidil 15750-15-9, Indium 111, biological studies 22112-79-4 22260-51-1, Bromocriptine mesylate 24980-41-4, Polycaprolactone 25038-59-9, Polyethylene terephthalate, biological studies 25248-42-4, Polycaprolactone 25322-68-3, Peg 25322-69-4, Polypropylene oxide 25722-33-2, Parylene 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 30516-87-1, Azt 31396-84-6 33069-62-4, Taxol 37187-49-8, Cytochalasin 51589-12-9 52013-44-2, Nitinol 54965-24-1, Tamoxifen citrate 55142-85-3, Ticlopidine 59277-89-3, Aciclovir 62669-70-9, Rhodamine 123 66104-23-2, Pergolide mesylate 71142-71-7 74863-84-6, Argatroban 79217-60-0, Cyclosporin 104227-87-4, Famciclovir 107910-75-8, Ganciclovir sodium 128171-16-4, Hydroxybutyric acid-hydroxyvaleric acid copolymer 128270-60-0, Hirulog
(silver implantable medical device)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L102 ANSWER 29 OF 37 COMPENDEX COPYRIGHT 2006 EEI on STN
ACCESSION NUMBER: 1995(18):485 COMPENDEX
TITLE: **Catalysts** for hydrocarbons synthesis from carbon monoxide and hydrogen on the basis of carbon membranes.
AUTHOR: Lapidus, A.L. (Inst Organicheskoj Khimii im.N.D.Zelinskogo RAN, Moscow, Russia); Krylova, A.Yu.; Strupov, A.N.; Linkov, V.M.; Sanderson, R.D.
SOURCE: Khimiya Tverdogo Topliva n 4-5 July-Oct 1994.p 69-72
CODEN: KTVTBY ISSN: 0023-1177
PUBLICATION YEAR: 1994
DOCUMENT TYPE: Journal
TREATMENT CODE: Experimental
LANGUAGE: Russian
AN 1995(18):485 COMPENDEX
AB **Catalysts** for hydrocarbons synthesis from carbon monoxide and hydrogen containing **cobalt** supported on carbon membranes (2 weight% Co) were studied.Membranes were activated by the addition of polyethylene glycol and **polyvinylpyrrolidone.Catalysts** were prepared using impregnation of membranes by **cobalt** nitrate solution with following drying.The **catalysts** were reduced with hydrogen at 450 degree C before the reaction testing.Depending on the **catalysts** preparation conditions, the catalytic activity (methane yield) varied from 6 to 129 g/cu m.Effects of reaction temperature on the **catalysts** activity and selectivity are described.3 Refs.

L102 ANSWER 30 OF 37 JICST-EPlus COPYRIGHT 2006 JST on STN
ACCESSION NUMBER: 920232609 JICST-EPlus
TITLE: Special Issue: Recent Progress in Carbon Materials. Composite Material for Advanced Concrete.
AUTHOR: SUGITA MINORU
CORPORATE SOURCE: Shimizu Construction Co., Ltd.

SOURCE: Seramikkusu (Ceramics Japan), (1992) vol. 27, no. 3, pp. 210-214. Journal Code: S0291A (Fig. 10, Tbl. 2, Ref. 5)
CODEN: SERAA7; ISSN: 0009-031X
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Commentary
LANGUAGE: Japanese
STATUS: New

L102 ANSWER 31 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:543754 HCAPLUS
DOCUMENT NUMBER: 115:143754
TITLE: Catalytic, water-soluble polymeric films for metal coatings
INVENTOR(S): Vaughn, George Douglas
PATENT ASSIGNEE(S): Monsanto Co., USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9109986	A1	19910711	WO 1990-US7340	19901213
W: AU, BR, CA, HU, JP, KR, NO, SU RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5082734	A	19920121	US 1990-609718	19901113
AU 9171673	A1	19910724	AU 1991-71673	19901213
AU 635393	B2	19930318		
BR 9007929	A	19921006	BR 1990-7929	19901213
EP 510065	A1	19921028	EP 1991-902490	19901213
EP 510065	B1	19981028		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
HU 62040	A2	19930329	HU 1992-2045	19901213
JP 05503121	T2	19930527	JP 1991-502784	19901213
AT 172755	E	19981115	AT 1991-902490	19901213
JP 2902109	B2	19990607	JP 1990-502784	19901213
CN 1053646	A	19910807	CN 1991-100670	1990

				1221
CN 1035393	B	19970709		
US 5275861	A	19940104	US 1992-820450	
				1992
				0109
NO 9202453	A	19920619	NO 1992-2453	
				1992
				0619
US 5403649	A	19950404	US 1993-91145	
				1993
				0713
CN 1152628	A	19970625	CN 1996-113416	
				1996
				0917
CN 1153227	A	19970702	CN 1996-108267	
				1996
				0917
CN 1155591	A	19970730	CN 1996-113415	
				1996
				0917
PRIORITY APPLN. INFO.:			US 1989-454565	A
				1989
				1221
			US 1990-569882	A
				1990
				0820
			US 1990-609718	A
				1990
				1113
			WO 1990-US7340	A
				1990
				1213
			US 1991-713246	A3
				1991
				0607

AB Metal-coated articles are described, where the metal is electrolessly deposited onto catalytic films prepared by thermally activating catalytically inert films formed from an aqueous solution comprising polymer, e.g., cellulosic, vinyl alc., or oxyolefin polymers, and catalytic metal of Group 8, e.g., Pd. Electrolessly deposited Cu on activated films exhibits high ductility similar to electrolytic Cu e.g., .gtorsim.8 percent ductility.

IC ICM C23C018-30

CC 67-1 (Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms)
Section cross-reference(s): 38, 40, 75

ST catalytic water sol polymer metal coating; electroless plating metal polymer **catalyst** film; copper plating metal polymer **catalyst** film; Group VIII polymer **catalyst** metal plating; **palladium** **catalyst** polymer film metal plating

IT **Catalysts** and Catalysis
(Group VIII element-polymer films, for metal electroless plating)

IT Fibers

(electroless plating on, Group VIII element-polymer film **catalysts** for)

IT Group VIII elements
(films formed from aqueous solution containing polymers and, for **catalyst** for metal electroless plating)

IT Polymers, uses and miscellaneous
(films formed from aqueous solns. containing Group VIII elements and, for **catalysts** for metal electroless plating)

IT Textiles
Tow
Yarns
Acrylic fibers, uses and miscellaneous
Glass fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
(metal electroless plating on, Group VIII element-polymer film **catalysts** for)

IT Polyester fibers, uses and miscellaneous
(taffeta, metal electroless plating on, Group VIII element-polymer film **catalyst** for)

IT Shields
(electromagnetic, metal electroless plating on fabrics for, Group VIII element-polymer film **catalysts** for)

IT **Carbon fibers**, uses and miscellaneous
(graphite, metal electroless plating on, Group VIII element-polymer film **catalysts** for)

IT Textiles
(nonwoven, metal electroless plating on, Group VIII element-polymer film **catalysts** for)

IT Electric circuits
(printed, metal electroless plating for, Group VIII element-polymer film **catalysts** for)

IT 7440-44-0 7782-42-5
(**carbon fibers**, graphite, metal electroless plating on, Group VIII element-polymer film **catalysts** for)

IT 7439-89-6, **Iron**, uses and miscellaneous 7440-06-4, Platinum, uses and miscellaneous 7440-31-5, Tin, uses and miscellaneous 7440-57-5, Gold, uses and miscellaneous 7440-66-6, Zinc, uses and miscellaneous
(coating, on copper electrolessly plated with **catalyst** of Group VIII element-polymer film)

IT 7631-86-9, Silica, uses and miscellaneous
(colloidal, film formed from aqueous solution containing Group VIII element and, for **catalyst** for metal electroless plating)

IT 7440-02-0, **Nickel**, uses and miscellaneous 7440-22-4, Silver, uses and miscellaneous
(electroless plating of, Group VIII element-polymer film **catalyst** for)

IT 7440-50-8, Copper, uses and miscellaneous
(electroless plating of, Group VIII element-polymer film **catalysts** for)

IT 57-50-1, Sugar, uses and miscellaneous
(film formed from aqueous solution containing Group VIII element and, for **catalyst** for metal electroless plating)

IT 9002-88-4 9002-89-5, **Polyvinyl alcohol** 9002-93-1 9003-01-4, **Polyacrylic acid** 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-25-8, Starch, uses and miscellaneous 24937-78-8, Ethylene-vinyl acetate polymer 25322-68-3

25805-17-8, Polyethyloxazoline 54590-72-6, AQ 55D 80449-64-5, Zonyl FSK
(film formed from aqueous solution containing Group VIII element and, for **catalyst** for metal electroless plating)
IT 7439-88-5, Iridium, uses and miscellaneous 7440-05-3, **Palladium**, uses and miscellaneous
(film formed from aqueous solution containing polymer and, for **catalyst** for metal electroless plating)

L102 ANSWER 32 OF 37 JICST-EPlus COPYRIGHT 2006 JST on STN
ACCESSION NUMBER: 910771754 JICST-EPlus
TITLE: Minute hardness change of compound hardening cement paste subjected to freezing and thawing action.
AUTHOR: FUJII TAKASHI
FUJITA YOSHIO
FUJIMOTO HIROSHI
CORPORATE SOURCE: Hakodate Technical College
Hokkaido Univ.
Ministry of Construction, Tohoku Regional Construction Bureaus
SOURCE: Doboku Gakkai Nenji Gakujutsu Koenkai Koen Gaiyoshu. 5, (1991) vol. 46th, pp. 412-413. Journal Code: S0904A (Fig. 7)
PUB. COUNTRY: Japan
DOCUMENT TYPE: Conference; Short Communication
LANGUAGE: Japanese
STATUS: New

L102 ANSWER 33 OF 37 COMPENDEX COPYRIGHT 2006 EEI on STN
ACCESSION NUMBER: 1990(3):30880 COMPENDEX
DOCUMENT NUMBER: 900333370
TITLE: Studies of reactions with polymers.V.The reaction mechanism and resultant structure of PVA with PAN in DMSO without any **catalyst.**
AUTHOR: Hu, Chun-Min (Tatung Inst of Technology, Taipei, Taiwan); Chiang, Wen-Yen
SOURCE: J Polym Sci Part A v 28 n 2 Jan 30 1990 p 353-366
CODEN: JPACEC ISSN: 0887-624X
PUBLICATION YEAR: 1990
DOCUMENT TYPE: Journal
TREATMENT CODE: Theoretical; Experimental
LANGUAGE: English
AN 1990(3):30880 COMPENDEX DN 900333370
AB The reaction of polyacrylonitrile with poly(vinyl alcohol) in dimethyl sulfoxide without any **catalyst** was studied, and it showed that the adjacent nitrile groups on polyacrylonitrile could be linked up to form conjugated carbon-nitrogen sequence by the presence of poly(vinyl alcohol).However, no such reaction occurred when poly(vinyl alcohol) was replaced by i-propanol or poly(vinyl alcohol) graft copolymers.The structure of the resulting polymers was proposed by means of IR, UV, 1H, and 13C-NMR spectroscopies.On the basis of the results, the effects of polymer feed and polymerization condition on this reaction were discussed.The compositions were determined by elemental analysis.The viscosity and thermal analysis of the products were also determined.At feed weight ratios of poly(vinyl alcohol) to polyacrylonitrile above one-half, gels were obtained. (Author abstract) 42 Refs.

L102 ANSWER 34 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:601866 HCAPLUS
DOCUMENT NUMBER: 107:201866
TITLE: Process for the production of hydrogenating **catalysts**
INVENTOR(S): Mori, Masao; Inoue, Akira; Takase, Shinji
PATENT ASSIGNEE(S): Nippon Oil Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 237240	A2	19870916	EP 1987-301774	19870227
EP 237240	A3	19880511		
R: DE, FR, GB, NL				
JP 62201643	A2	19870905	JP 1986-43200	19860228
PRIORITY APPLN. INFO.:			JP 1986-43200 A	19860228

AB Hydrogenation **catalysts** for heavy oils are prepared by (1) mixing Al2O3 or its precursor with C fiber, (2) drying and calcining the mixture in an O-containing gas steam to remove C fiber and to form porous Al2O3 support, and (3) depositing ≥1 metal components selected from Group VIB and VIII metals. The C fiber (diameter 0.1-100 μ) is added at 5-50 weight% loading, based on weight of Al2O3 or Al2O3 precursor. An Kahnuj atmospheric distillation residue was hydrogenated over a Mo-Ni-Co/Al2O3 **catalyst** prepared as above, resulting in satisfactory desulfurization and demetalation after 3000 h, compared with a **catalyst** prepared without addition of C fiber. The **carbon fiber** is typically prepared by carbonization or graphitization of pitch or polymer (e.g., polyacrylonitrile, rayon, lignin, or **polyvinyl alc.**) fibers.

IC ICM B01J037-00
CC 51-10 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 57
ST hydrogenation **catalyst** petroleum residue; **carbon fiber** petroleum hydrogenation **catalyst**; molybdenum **nickel cobalt** hydrogenation **catalyst**; hydrodesulfurization hydrodemetalation petroleum hydrogenation **catalyst**
IT **Carbon fibers**, uses and miscellaneous
(addition of, in preparation of petroleum hydrogenation **catalysts**, for residues)
IT Petroleum refining residues
(distillation, hydrogenation-hydrodemetalation-hydrodesulfurization of, **catalysts** for, preparation of, **carbon fiber** addition in)
IT 7440-44-0

(**carbon fibers**, addition of, in preparation of petroleum hydrogenation **catalysts**, for residues)

IT 7439-89-6, **Iron**, uses and miscellaneous 7439-98-7, Molybdenum, uses and miscellaneous 7440-02-0, **Nickel**, uses and miscellaneous 7440-05-3, **Palladium**, uses and miscellaneous 7440-06-4, Platinum, uses and miscellaneous 7440-33-7, Tungsten, uses and miscellaneous 7440-47-3, Chromium, uses and miscellaneous 7440-48-4, **Cobalt**, uses and miscellaneous
(**catalysts** containing, for hydrogenation of petroleum refining residues, preparation of, addition of **carbon fiber** in)

L102 ANSWER 35 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:139790 HCAPLUS
DOCUMENT NUMBER: 106:139790
TITLE: Electrically conductive graphite fiber webs
INVENTOR(S): Komatsu, Yukinari; Nakamura, Katsuyuki
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61225360	A2	19861007	JP 1985-58817	1985 0323

PRIORITY APPLN. INFO.: JP 1985-58817 1985 0323

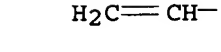
AB Graphite fiber webs having high elec. conductivity are prepared by forming fine **carbon fibers** by a vapor-phase growth process, graphitizing the fibers, and forming webs from the fibers or their blends with other fibers. Thus, a mixture containing benzene and 1.5% **Fe** carbonyl was **heated** at 1200° in a reactor containing a 1:1 H/Ar mixture to give **carbon fibers** with diameter 0.5 μ, aspect ratio 300-1000, 1-3 crimps per 40 μ, and degree of crimping 15%. The fibers were then graphitized 30 min at 2700° and pulverized to give graphite fibers with aspect ratio 300-600. A mixture of these fibers 100, poly(**vinyl alc.**) staple fibers (length 1-3 m) 40, Polystar OM (anionic surfactant) 50, and acrylamide 110 parts in 2 L H2O was fed to a papermaking machine, and dried to give a bonded 36-g/m2 web. The web had **surface** resistivity (in the machine or transverse direction) 8-15 Ω, and resistance (thickness direction) 1-6 Ω; vs. 100-200 Ω and 10-15 Ω, resp., for an acrylic fiber-**based** graphite fiber web.

IT **9002-89-5**
(vinal fibers, binders, for graphite fibers, in elec. conductive nonwovens)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



IC ICM D04H001-42
ICS C04B014-38; D01F009-12; D21H005-18; H04R007-02; H04R031-00
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 37, 52, 72, **76**
ST graphite fiber nonwoven elec conductive; web nonwoven conductive graphite fiber; benzene **based** graphite fiber nonwoven; vinal fiber nonwoven elec conductive; **carbon fiber** graphitized nonwoven conductive
IT Hydrocarbons, reactions
(**carbon fiber** manufacture from, by vapor-phase pyrolysis, for elec. conductive graphitized nonwovens)
IT **Carbon fibers**, preparation
(manufacture of, by vapor-phase pyrolysis of hydrocarbons, with fine diameter, for graphitized elec. conductive webs)
IT Graphitization
(of **carbon fibers**, for manufacture of elec. conductive nonwovens)
IT Carbonization and Coking
(of hydrocarbon vapors, **carbon fiber** manufacture by, for elec. conductive graphitized nonwovens)
IT Carbonization catalysts
(**organic metal** compds., for hydrocarbon vapors, in manufacture of elec. conductive graphite fiber nonwovens)
IT **Carbon fibers**, uses and miscellaneous
(graphite, nonwoven, manufacture of, elec. conductive)
IT 71-43-2, Benzene, properties
(**carbon fiber** manufacture from, by vapor-phase pyrolysis, for elec. conductive graphitized nonwovens)
IT 7440-44-0P 7782-42-5P
(**carbon fibers**, graphite, nonwoven, manufacture of, elec. conductive)
IT 7440-44-0P
(**carbon fibers**, manufacture of, by vapor-phase pyrolysis of hydrocarbons, with fine diameter, for graphitized elec. conductive webs)
IT 15281-98-8, **Iron** carbonyl
(carbonization catalysts, for hydrocarbon vapors, in manufacture of graphite fiber webs)
IT **9002-89-5**
(vinal fibers, binders, for graphite fibers, in elec. conductive nonwovens)

L102 ANSWER 36 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:476982 HCAPLUS
DOCUMENT NUMBER: 77:76982
TITLE: Preparation of carbon paper or carbon cloth
INVENTOR(S): Degginger, Edward R.
PATENT ASSIGNEE(S): Allied Chemical Corp.
SOURCE: U.S., 4 pp. Continuation-in-part of U.S. 3,542,582 (CA 74;43448x).
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3649196	A	19720314	US 1968-784947	1968 1218
PRIORITY APPLN. INFO.:			US 1968-784947 A	1968 1218

AB Fibrous carbonaceous cloth mats or paper are prepared by impregnating a fibrous cellulosic substrate (e.g., cheesecloth or paper) with an aqueous solution containing borate and poly(vinyl alc.) (I) [9002-89-5], allowing the aqueous component to evaporate from the impregnated substrate, and carbonizing the substrate. Thus a 1-ft square piece of unbleached kraft paper 10 mils thick was immersed for 2 min in 100 cm3 of aqueous solution containing 1.5 weight % each of borax [1303-96-4] and >99% hydrolyzed I. The paper was removed, excess liquid, removed, the paper air-dried, and ignited at one lower corner while held vertically. The paper was burned to the carbon analog of kraft paper. Other examples (6) are given, some of which use cotton broadcloth and cheesecloth as the substrate. The title paper comprises of felted or matted sheets of **carbon fibers** structurally analogous to its cellulosic precursor, and is in no way related to the coated reproducing paper. The carbon cloth or paper is useful as a **catalyst** support or filtration medium.

IC C01B
INCL 023209400
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 39
ST carbon paper borate; cloth carbon mat; **polyvinyl alc** carbon paper; filtration medium carbon cloth; **catalyst** carbon rope
IT Jute
Paper
(borax and **vinyl alcohol polymers** --impregnated, carbon cloth from)
IT Textiles
(cotton, borax and **vinyl alcohol polymers**-impregnated, carbon cloth from)
IT Hydrogenation **catalysts**
(**palladium** chloride-impregnated carbon cloth, for dihydronaphthol)
IT 7647-10-1
(**catalysts**, containing carbon cloth, for hydrogenation of dihydronaphthol)
IT 7440-44-0P, preparation
(cloth, from paper impregnated with borax and **vinyl alcohol polymers**)
IT 1332-77-0
(cotton textiles impregnated with **vinyl alcohol polymers** and, carbon cloth from)
IT 27673-48-9
(hydrogenation of, **catalysts** for)

L102 ANSWER 37 OF 37 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1971:43448 HCAPLUS
DOCUMENT NUMBER: 74:43448
TITLE: Carbon cloth
INVENTOR(S): Degginger, Edward R.
PATENT ASSIGNEE(S): Allied Chemical Corp.
SOURCE: U.S., 3 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3542582	A	19701124	US 1968-768494	1968 1017

PRIORITY APPLN. INFO.: US 1968-768494 A 1968 1017

AB Fibrous cellulose (e.g. cotton and linen cloth, jute fibers, or kapok) was impregnated with aqueous solns. containing 1-3% borax and 1-3% of 99+% poly(vinyl alc.) [i.e., ≥99%-saponified poly(vinyl acetate)], dried, and ignited or roasted at 300-400° to give the carbon structural analog of the treated material instead of the fragile ash given by untreated materials. Carbonized cotton rope and woven cloth were used to prepare a Pd-on-carbon-rope hydrogenation **catalyst** and a filter mat, resp.

IC D06M
INCL 117046000
CC 39 (Textiles)
ST carbon cloth; cloth carbon; **polyvinyl alc** cellulose compns; borax cellulose compns; cellulose carbonization
IT **Fiber**, synthetic
(**carbon** fabric, from cellulosic textiles impregnated with borax and **vinyl alc. polymers**)
IT Filtering materials
(**carbon fiber** fabric)
IT Hydrogenation **catalysts**
(**palladium**, on **carbon fiber** fabric)
IT 1303-96-4 9002-89-5, uses and miscellaneous
(**carbon fiber** fabric from cellulosic textiles impregnated with)
IT 7440-05-3, uses and miscellaneous
(**catalysts**, for hydrogenation, **carbon fiber** fabric supports for)
IT 7440-44-0P, preparation
(fiber, fabric, from cellulosic textiles impregnated with borax and **vinyl alc. polymers**)